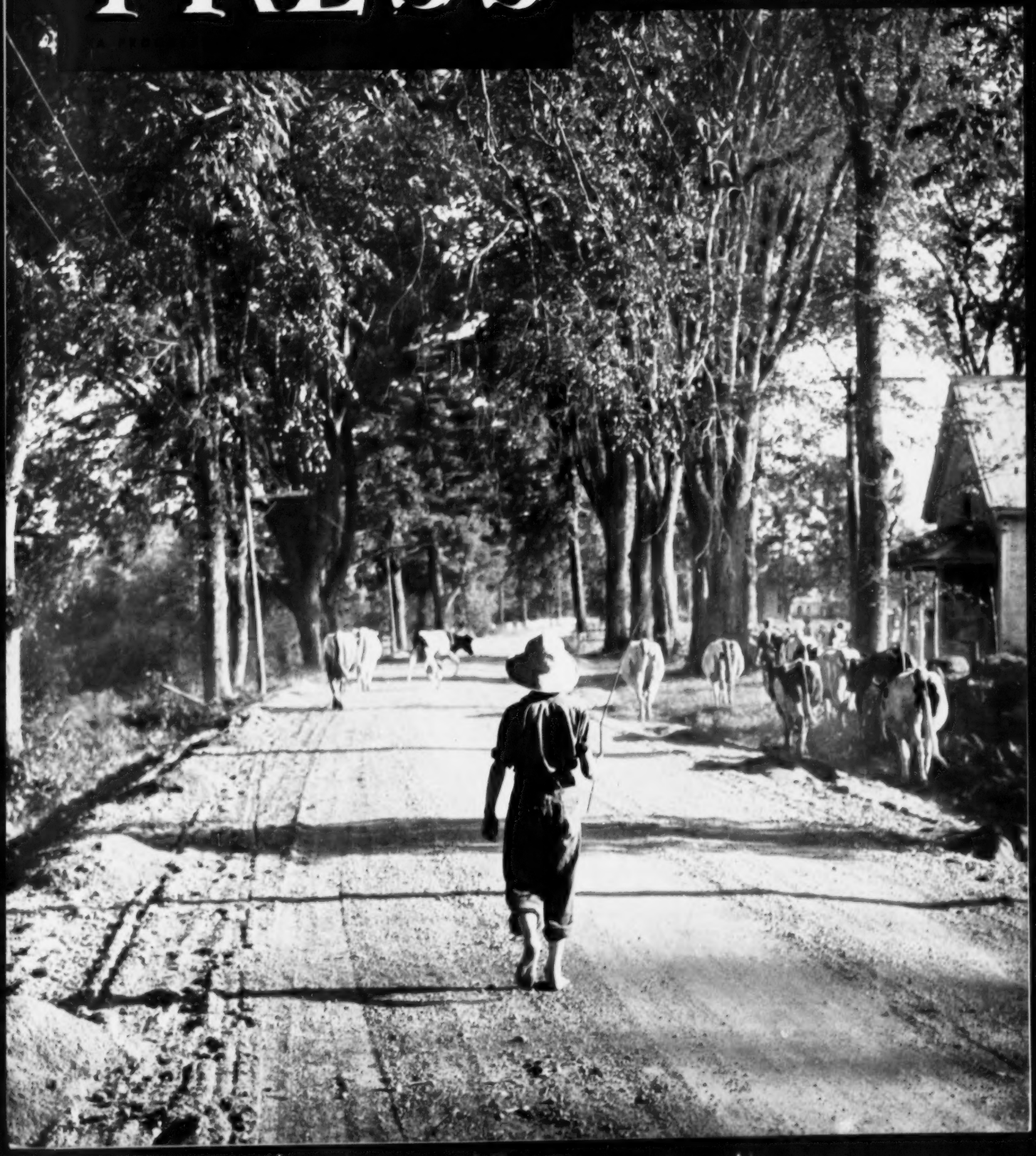
PRESS

57th year



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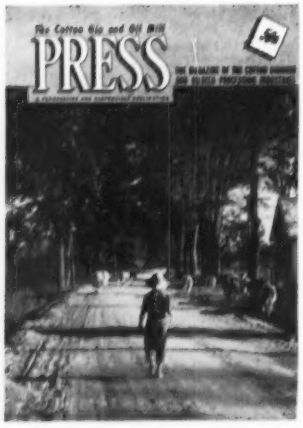

ON OUR COVER

The barefoot boy driving cows down a lane is one of the most familiar of rural scenes, sure to bring back memories for most men of this generation. Our cover scene, however, is more likely to live in memory than in fact, as modern dairying trends toward large, efficiently-fed herds. And, the barefoot boy of yesterday now is likely to be a well-shod mechanic who can tell Dad how to run the tractor or to prepare scientific concentrate and mineral mixtures for the herd.

Photo by A. Devaney, Inc.

VOL. 57 SEPT. 22, 1956 NO. 19

The Cotton Gin and Oil Mill PRESS . . .

READ BY COTTON GINNERS, COTTONSEED CRUSHERS AND OTHER OILSEED PROCESSORS FROM CALIFORNIA TO THE CAROLINAS

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THE COTTON GIN AND OIL MILL PRESS

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A PROGRESSIVE AND RESPONSIBLE PUBLICATION

New Development In Roller Gin Research

Experimental rotary knife demonstrated at USDA's Southwestern Ginning Laboratory may be first major improvement in decades.

By V. L. STEDRONSKY
Agricultural Engineering Research Branch, ARS-USDA

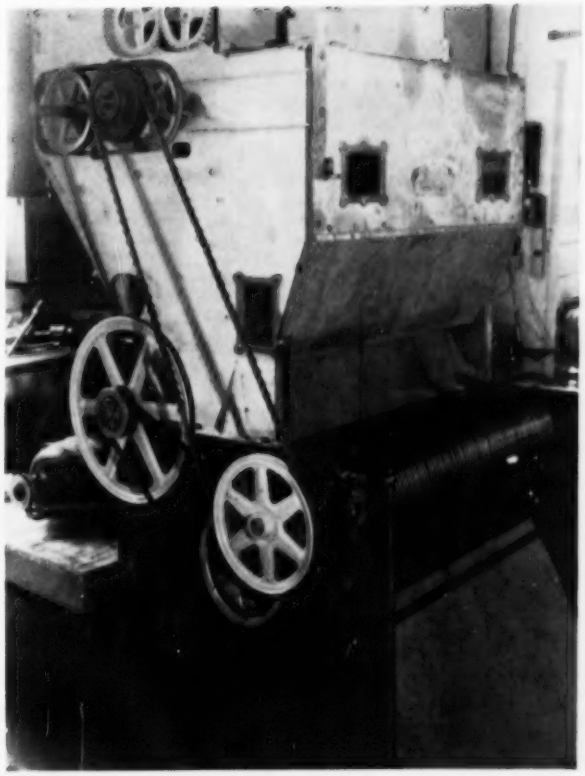
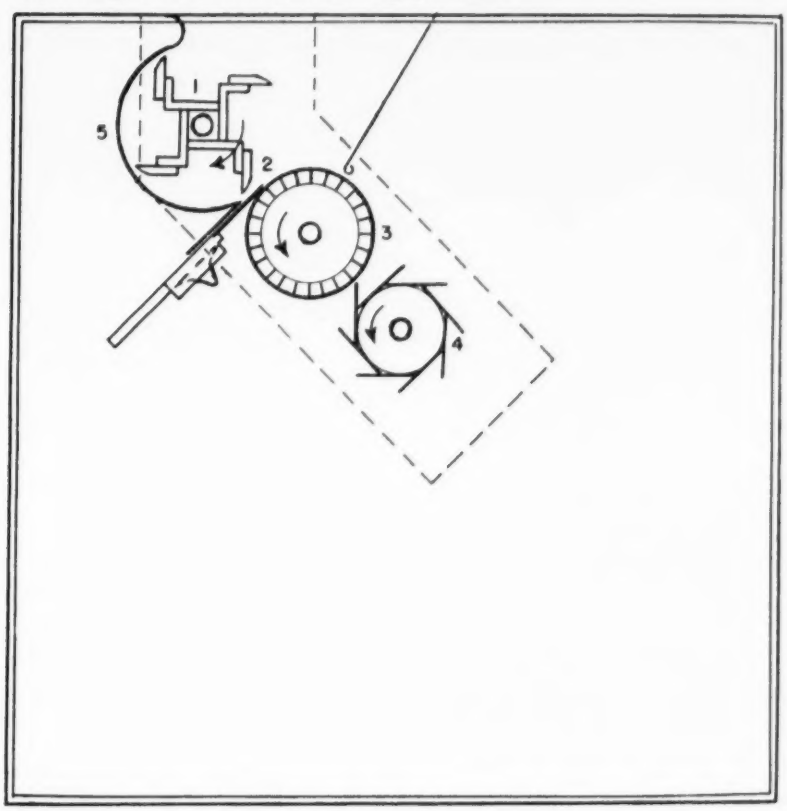


Figure 2.—Experimental 40-inch roller gin with rotary knife.

Figure 1.—Cross-sectional view of the Multiblade Rotary Knife Gin showing (1) the rotating knives; (2) stationary knife; (3) gin roller; (4) doffers; and (5) seed grids and seed cotton cleaning grid bars.



THE SOUTHWESTERN Cotton Ginning Research Laboratory at Mesilla Park, N. M., has worked for several years in an effort to increase the efficiency of equipment and operation in ginning American-Egyptian cotton. The laboratory has recently demonstrated an experimental rotary knife for roller gins that may well be the first major development since the invention of a roller gin improvement by Fones McCarthy in 1840.

The rotary knife was designed and constructed for the purpose of increasing ginning capacity and to overcome some of the well-known limitations of conventional roller gins. It eliminates vibration of present cranks, eccentric and reciprocating moving knives, improves the seed disposal, enhances seed cotton cleaning, and improves the feeding of seed cotton to the gin roller.

Work on the development of the pilot model began last winter and by the early part of 1956 the laboratory staff started the construction of a full sized 40-inch gin stand in which the rotary knife is used.[1] The 40-inch model has been subject to preliminary laboratory tests with encouraging results. It has been seen by ginners, ginning machinery manufacturers and farmers and considerable interest has been shown in the innovation.

The design of this gin employs a multiblade rotating knife, as shown in Figure 1, which replaced the conventional reciprocating moving knife. The rotating knife eliminates gin stand vibration and will permit high operating speeds. The optimum speed has not been determined but is being run experi-

[1] Development made by David L. Alberson and Henry T. Montgomery with credit to W. H. Kahl, formerly employed at the Laboratory.

mentally at approximately 250 rpm, or the equivalent of 1,000 strokes per minute of a reciprocating knife.

The position of the knife and the ginning action permit more positive seed disposal through the seed grid than is possible on conventional roller gins. Also, the arrangement of parts is such as to minimize the mixing of seed, unginned seed cotton, burs, and sticks. Another advantage of the new gin is that the ginning roller is free at all times to pick up cotton and is not blanked off for approximately 50 percent of the time as is the case with the conventional reciprocating knife.

Seed cotton is fed with a conventional feeder onto the gin roll to which it adheres and the fiber is drawn between the stationary knife and the roll. The rotating knife pushes the seed away from the ginning point and returns partially ginned locks to the ginning roller. This action is repeated until the seed is completely ginned. The ginned seed are discharged between the seed grids and the fiber is doffed from the roller onto a conveyor belt. Seed cotton which is swept over the seed grid is subjected to a cleaning action and foreign material, such as sticks, stems, burs, and leaf fragments, are discharged with the seed through the seed grid. Figure 2 shows the experimental unit in the laboratory shop.

The American-Egyptian long staple industry is in urgent need of gins with higher capacity than those now in use. To speed up the normal process of research and development, plans are being made to have several experimental gins with rotary knives in commercial gins during the 1956-57 season to explore the full possibilities of this device. Laboratory work also will continue in experiments with blade types and shapes for most effective results.

Cotton Ginned to Sept. 1

Cotton ginnings prior to Sept. 1 totaled 1,512,738 running bales, slightly more than to the same date last season but below ginnings to Sept. 1, 1954, the Bureau of Census reports. U.S. ginnings by states, to Sept. 1, 1956, 1955 and 1954 follow:

State	Running bales		
	1956	1955	1954
United States	*1,512,738	*1,386,589	*1,694,792
Alabama	75,080	118,847	149,486
Arizona	21,972	5,727	22,626
Arkansas	8,565	2,604	4,009
California	6,787	1,461	3,981
Florida	3,482	9,365	11,896
Georgia	134,960	166,271	221,666
Louisiana	89,276	43,471	82,601
Mississippi	117,037	64,704	90,885
South Carolina	65,961	81,385	88,234
Texas	989,618	892,754	1,019,408

*Includes 404,845 bales of the crop of 1956 ginned prior to Aug. 1 counted in the supply for the season of 1955-56, compared with 313,858 and 388,229 bales of the crops of 1955 and 1954.

The statistics in this report include 53 bales of American-Egyptian for 1956, none for 1955, and 12 for 1954.

The statistics for 1956 in this report are subject to revision when checked against the individual returns of the ginners being transmitted by mail.

Cotton consumed during the month of July, 1956, amounted to 549,520 bales. Cotton on hand in consuming establishments on July 31, 1956, was 902,890 bales, and in public storage and at compresses 12,845,734 bales. The number of active consuming cotton spindles for the month was 19,022,000. The total imports for the month of June 1956, were 4,452 bales and the exports of domestic cotton, excluding linters, were 237,722 bales.

■ **WILLIAM TED CRUMP is now manager of Minturn Co-op Gin, Madera County, Calif.**

Manages Refineries

PORTER A. WILLIAMS has been named general manager of refineries for Southern Cotton Oil Co., with headquarters in New Orleans. Williams joined South Texas Cotton Oil Co. on Sept. 1, 1931, at the Houston refinery, working in the laboratory. He continued as chemist for both the refinery and mill until 1939, when he went to Memphis as assistant works superintendent. He became Memphis works superintendent in 1955, and was named to his present position in July of this year.

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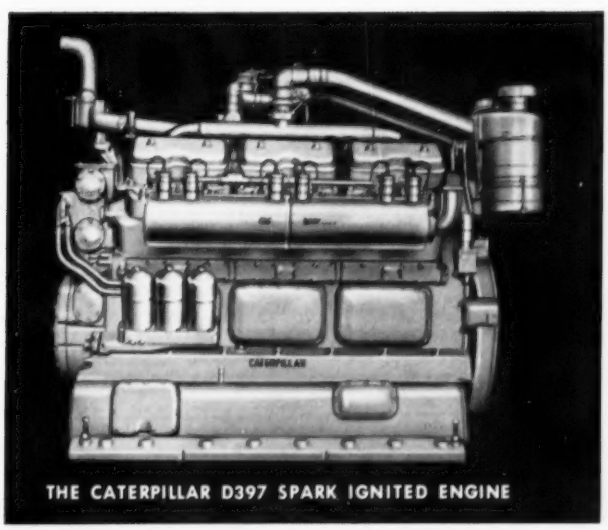

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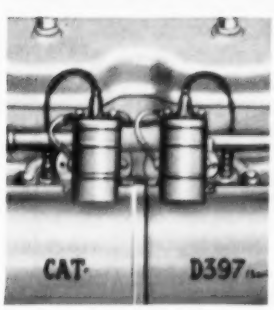
Caterpillar Tractor Co., Peoria, Illinois, U. S. A.



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MODERN HEAVY-DUTY SPARK IGNITED ENGINES

How Weathering in the Field Reduces Cotton in Value

The author spells out the dollars-and-cents losses for farmers through depreciation in staple and grade that results when cotton is left too long in the field so that it is damaged by the action of weather.

FIELD WEATHERING of cotton can depreciate the value of the fiber more than is generally realized. A long period in the field prior to harvest reduces the staple, adds color to the fiber which lowers the grade, weakens the fiber through oxidation and affects dye adsorption by changing the polar charge on the fiber (1, 2). If the fiber is weathered under moist conditions from rain, fog and dew for any length of time, biological degradation takes place through microorganism and the cotton will lose strength, develop odor; and, in some types of decay, it will show color changes.

The producer is seldom aware of the loss through grade depreciation and staple change. The mill cannot detect oxidation and dye adsorption change without extensive tests. Biological degradation is difficult to determine and the damage to the fiber may lead to poor running cotton. Under these conditions, the loss to the mill in "ends down," weak yarn and off color can mean the difference between a profitable and an unprofitable cotton. The purpose of this paper is to evaluate these losses.

• **Experiments Conducted** — A storm proof variety of High Plains cotton of known age was allowed to weather in the field at intervals from two weeks to five months (1). The cotton was tagged on opening over a two-month period. The average of the various aged cotons opening over the season gave an average cross-section of weathering conditions for a complete season. Physical properties determined were length, strength, fineness, maturity and light reflectance (1). Chemical properties determined were degree of polymerization, cellulose, pH, copper reduction number, dye adsorption, carbonyl and carboxyl groups (2).

Since light reflectance has been correlated with grade (3), the loss in grade with days in the field was based on instrumentation and not left to visual determination.

• **Results Shown** — In order to show the value relationship between staple and grade, a graph of Memphis spot cotton quotations is shown, Figure 1. The maximum price change was between Good Ordinary to Middling grade white cotton for all staples from 13/16 to 1-1/8 inches. The price variation in grade with staple length can be as much as 12 cents for 1-1/8 inch cotton to 8.5 cents for 13/16 inch.

The effect of days weathering in the field on grade and staple, along with price depreciation per pound is shown in Figure 2. Loss in staple for inch cotton over a five-month period can be as high as 1/8 inch and a loss in value of better than three cents a pound. Over the same period the maximum change is six grades with a loss of nearly 11 cents.

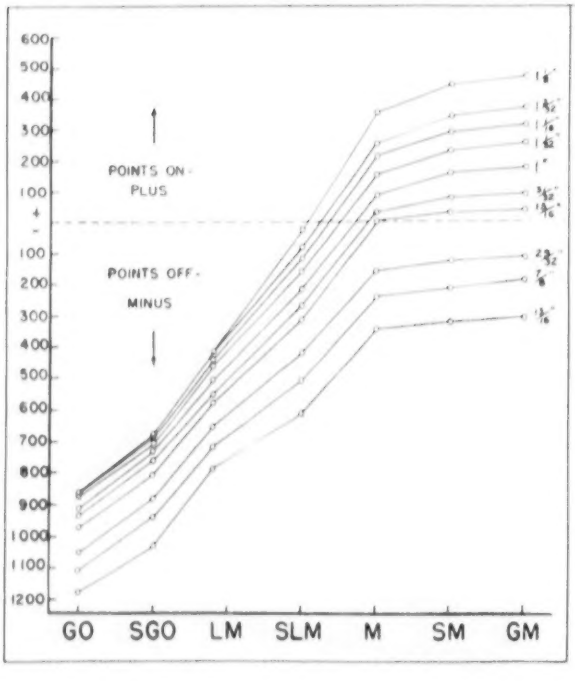
The value of cotton depreciates rapidly from Middling grade on down when left in the field for three weeks or longer, Table 1. Grade loss from Middling cotton and lower is approximately one grade for every three weeks in the field. Since, under mechanically har-

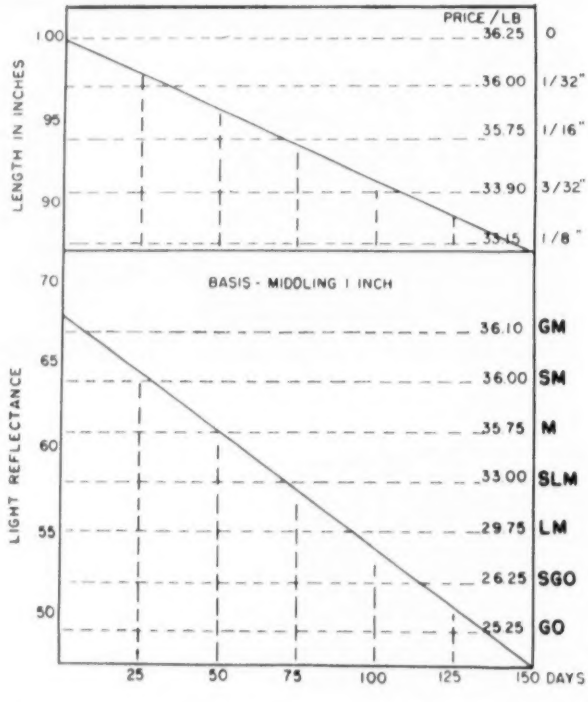
(Continued on Page 29)

By LYLE E. HESSLER,*
Texas Technological College

*The author is Research Associate at the Fiber and Spinning Laboratory of the Cotton Research Committee of Texas at Texas Technological College in Lubbock.

FIGURE 1, on the left, shows spot cotton quotations on the Memphis market in April, 1956. Figure 2 shows the loss in grade and staple through field weathering. The price per pound is basis Middling inch.





• Texas Crushers List New Committees

COMMITTEES of Texas Cottonseed Crushers' Association for 1956-57 have been appointed by J. Carlyle Newberry, Gonzales, president. He announces the following appointments:

Agricultural Committee — T. J. Harrell, chairman, Fort Worth; F. Earl Davis, vice-chairman, Harlingen; Ben R. Barbee, vice-chairman, Abilene; D. B. Denney, Wolf City; Joe Flaig, Dallas; James R. Gill, Paris; W. L. Goble, Sr., Waco; A. J. Mills, Stamford; P. A. Norris, Jr., Fort Worth; R. P. Tull, Terrell; S. J. Vaughan, Jr., Hillsboro.

College Relations Committee—W. D. Watkins, chairman, Abilene; Roy B. Davis, vice-chairman, Lubbock; H. E. Wilson, vice-chairman, Wharton; B. W. Beckham, Jr., Robstown; R. G. Fleming, Lamesa; C. C. Harlan, Paris; J. P. Holman, Waco; J. W. Howell, Jr., Bryan; Paul Lemm, Jr., Brenham.

Insurance and Safety Committee—Ben R. Barbee, chairman, Abilene; D. B. Denney, vice-chairman, Wolf City; W. L. Goble, Jr., vice-chairman, Waco; C. W. Graham, Fort Worth; W. C. Smith, Wichita Falls; W. D. Vaughan, Fort Worth; C. L. Walker, Jr., Temple; Henry Wunderlich, Corpus Christi.

Membership Committee—R. H. Sterling, chairman, Shiner; George B. Hall, vice-chairman, El Paso; J. V. Stiles, vice-chairman, Taylor; O. E. Key, Lubbock; J. T. King, Palestine.

Peanut Committee—John Burroughs, chairman, Portales, N. M.; C. S. Matthews, vice-chairman, Brady; W. E. Fricke, vice-chairman, Fredericksburg; Zan Burroughs, Cisco; Ned Curtis, Pearsall; B. C. Reese, San Antonio; Hugo G. Schmitt, Seguin; Dorman D. Sell, Giddings; Charles H. Warnken, Poth; R. Irvin Wright, Winnsboro.

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Special Task Committee—J. W. Simmons, Jr., chairman, Dallas; Roy B. Davis, vice-chairman, Lubbock; H. Wunderlich, vice-chairman, Corpus Christi; D. B. Denney, Wolf City; Ray Grisham, Abilene; A. J. Mills, Stamford; J. W. Shepard, Jr., Terrell; S. J. Vaughan, Jr., Hillsboro; W. B. Vaughan, Fort Worth.

Water Conservation Committee—J. H. Fox, chairman, Hearne; R. A. Montgomery, vice-chairman, El Paso; C. L. Walker, Jr., vice-chairman, Temple; Don Guitar, Colorado City; R. R. Kelley, Stamford; John G. Kerlick, Yorktown; O. E. Key, Lubbock; Edwin O. Lundgren, Elgin; Rex Steele, Harlingen.

Future Farmers of America Get ACCO Scholarships

Anderson, Clayton & Co. has presented college scholarships to several promising young cotton farmers in Texas each year for the past nineteen years.

These winners are provided with scholarships of $200 each to be applied toward their college expenses at their choice of any of seven Texas schools.

The five winners of this year's ACCO-sponsored FFA contest in Texas are: Darrell Lynn Hartman, Goliad; Royce Bodiford, Millsap; Curtis Walker, Jr., Cooper; Billy Joe Boyd, Crosbyton; Travis Horton, Arthur City.

Purpose of the program is to promote among Future Farmers and adult farmers greater general interest in more efficient cotton production.

Lower Valley Gins More

Willacy and Starr Counties' larger crops account for a slight increase over 1955 in cotton production in the Lower Rio Grande Valley of Texas. By counties, ginnings have been as follows, with 1955 figures in parenthesis: Cameron, 143,804 (144,643); Hidalgo, 176,023 (183,030); Willacy, 79,023 (61,827) and Starr, 3,283 (2,700).

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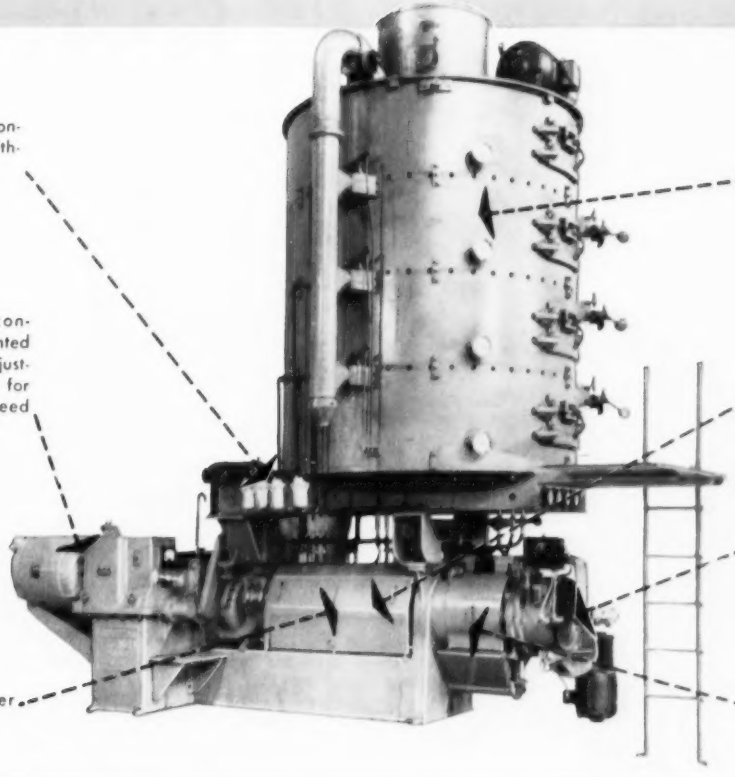

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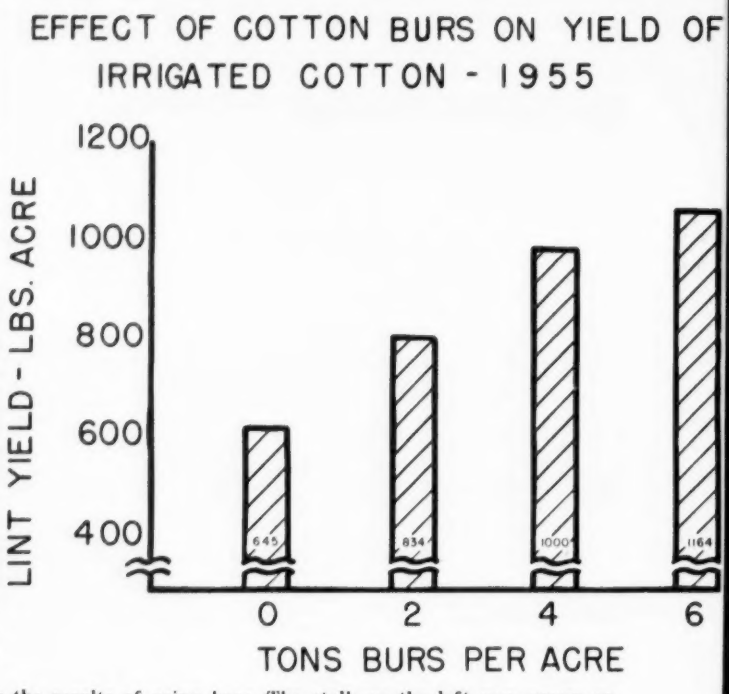


COTTON STALKS held by the two men on the left, show the results of using burs. The stalk on the left was grown on land where burs had been applied. Water penetration and holding results of bur experiments are shown in this chart.

Cotton Burs Benefit Irrigated Soil

MORE TONS of cotton burs are being put back on the land in the Texas High Plains than ever before, says a recent article in "The Cross Section."

Comparative fertilizer values of bur mold and barnyard manure, shown below point out the favorable comparison of burs with manure:

Elements	Percent Available	Per Ton Pounds
Bur Mold		
Nitrogen	1.5	30
Phosphate (P205)	.395	7.9
Potash (K20)	5.076	101.52
Barnyard Manure		
Nitrogen	.5	10
Phosphate (P205)	.3	6
Potash (K20)	.4	8

Increased yields made by those using burs in the area are spurring others to action. The increased water holding capacity of soils treated with cotton burs is most attractive to irrigation farmers who are confronted with annual underground water level declines.

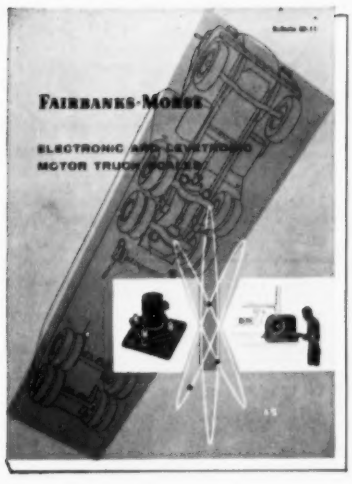
There has been more actual research done on the use of cotton burs than is generally realized. Research workers know that on bur-treated soil wind erosion is lessened because of the better condition of the soil. It is known that burs mellow the soil and make it spongy and easier to work. Water penetration from rainfall is greater, and evaporation is minimized on bur-treated land. As yet however figures are not available that point out statistically the extent of these facts.

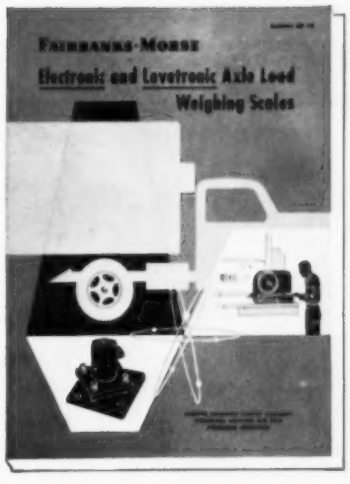
Much has been learned pertaining to crop yields and their relationship to burs. In 1954, the Paymaster Farm in Aiken farmed test plots which showed that five tons of composted burs increased the yield of cotton lint by 65 pounds per acre; 10 tons of composted burs increased the yield of lint per acre by 275 pounds.

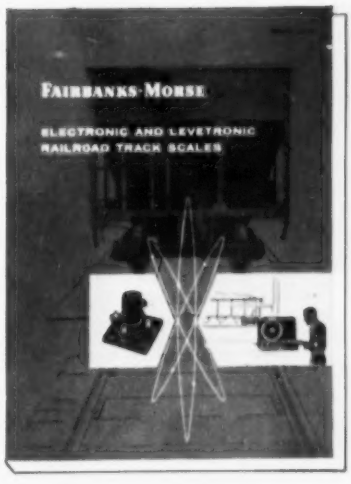
The cost of applying burs to the land varies; however, the general cost of distributing the burs is $2.50 per ton. The burs themselves usually are free—

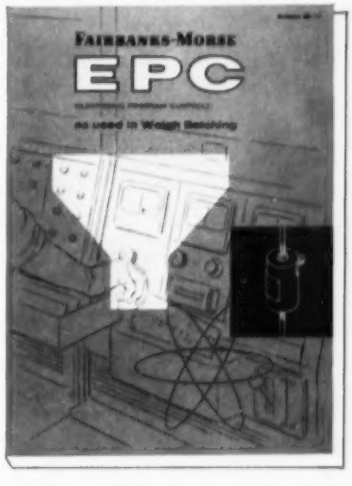
(Continued on Page 23)

BURS ARE LOADED at the cotton gin on a truck which has been equipped with special distributing features for spreading compost over farms, as shown on left. A truck is shown, on the right, spreading burs on that tract of land.

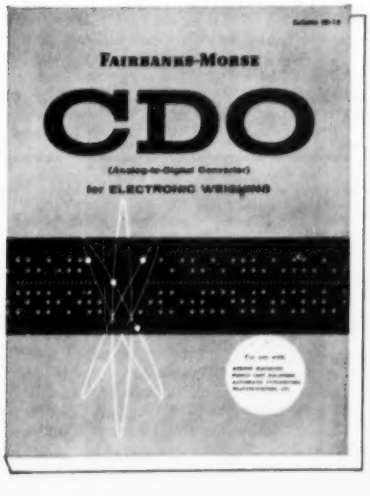








The story of Fairbanks-Morse Electronic Scales in seven volumes



Just off the press—seven new bulletins about Fairbanks-Morse electronic weighing and batching machinery. The covers pretty well identify themselves as illustrated above, except that you might not know that EPC is a completely automatic batching system that operates from punch cards . . . or that Batchetron is a slightly less automatic batcher with quick provision for manual preset of the cycle . . . or that CDO is a "read-out" instrument that will translate the weight message of any of the other six into the language "spoken" by automatic typewriters and automatic adding machines and automatic tape punches.

Write today for one or more of the new bulletins on Fairbanks-Morse electronic weighing and batching. Fairbanks, Morse & Co., Scale Division, Dept. CGOMP-922, 600 South Michigan Avenue, Chicago 5, Illinois.

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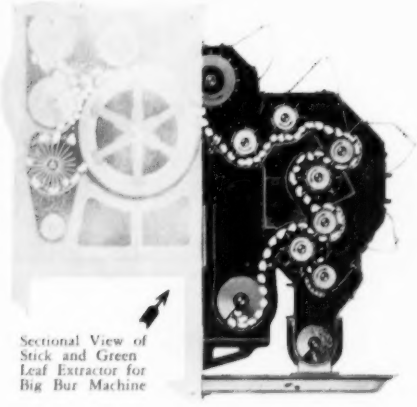
STICK REMOVERS Make

More Money for Ginners, Farmers



Sectional View of Stick and Green Leaf Extractor for Big Bur Machine

IN THE YEARS since the first mechanical cotton picker, there was much concern over the rapidly changing methods of cotton harvesting without equal progress in improved ginning facilities.

Fortunately, an intensive research and development project was begun in 1948 by the U.S. Cotton Ginning Research Laboratory, Stoneville, Miss., to cope with the increasing problem of stick and leaf trash. (USDA laboratory test results have been reported in earlier issues of The Press.) Now hundreds of stick removers are proving their value to ginners and growers alike.

Reports from the recently completed ginning season in the Lower Rio Grande Valley of Texas offer full field proof of laboratory test results. In fact, a unanimous tribute paid these machines has been: "They not only remove sticks and leaves effectively, but also do excellent cleaning of other trash and motes from the cotton". Ginners have realized the extreme necessity of keeping pace with the demands of rapid mechanization, as well as the need for maintenance of fiber quality and improvement of sample.

One ginner from the Valley reports that his volume of ginning has almost tripled after installing stick removers. He attributes the increase to the awareness of farmers in his area to the need for such equipment. The enthusiasm generated by the improved stick remover has brought comments that "dollar for dollar, the stick machine is the best investment in a gin".

Low grades have cost cotton producers and ginners millions of dollars in past seasons. In the High Plains of Texas alone, for example, it is estimated that producers lost almost $30 million last season because of grades below Middling White. Other large sums are needlessly lost due to dockages for trash-filled seed.

The new centrifugal extraction principal these machines employ was developed by USDA, and application was made for a patent dedicated to the public. Originally designed primarily as a stick remover, and so named, these machines have proved to be leaders for extraction of hulls, grass, and all other types of trash.

The fundamental principal of design has been improved, and after further development, testing and engineering by manufacturing engineers, a practical commercial machine has been produced as an attachment to the big bur extractor. Splendid results are achieved since the bur extractor acts as a feeder for the stick remover, both being the same length. Another advantage is the economy and ease of installation. Stick removers installed in this manner do not require an additional separator, individual conveyors, or piping, which make for a relatively inexpensive installation the manufacturer points out.

At this position in the ginning system,

the stick remover will be preceded by an inclined cleaner as well as the bur machine, and preferably a dryer ahead of the first cleaner. A feature of interest is that the centrifugal extraction principal used in these machines does not subject the seed cotton to "machining" or "roping", with the result that, even though a by-pass system is incorporated in the device, few ginners use it, preferring to take advantage of the exceptional cleaning and extraction ability of the machine. Fiber, spinning, and nep tests show no adverse effect on fiber or spinning quality and no increase in the number of neps in the lint.

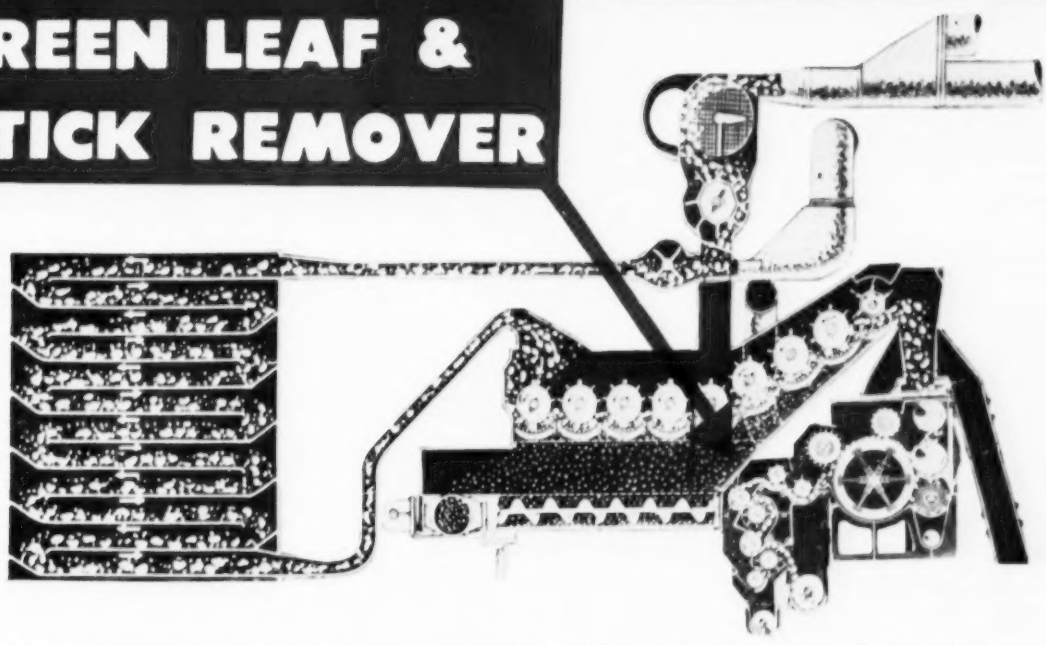
Demand for the stick removers early this year created a backlog of orders. Production schedules had to be altered and stepped up, and with settlement of the steel dispute, delivery and installation in all parts of the Cotton Belt was made possible, the manufacturer reports.

Many gins contemplate "mid-season" installations of stick removers so as to be prepared for the roughest cotton in the last half of the ginning season. Others are pushing for early installation in anticipation of certain price hikes.

To what is this phenomenal acceptance to an entirely new method due? There are probably three answers—the increased trend toward mechanical harvesting, the successful, economical performance of the machines, and the definite need for this type of cleaning equipment in gins throughout the cotton-growing area.

TOM COLLEY, JR., has been farming and ginning for many years and has operated two gins at Lockney, Texas. This year he remodeled and modernized the 5-80 Colley Gin at Edinburg, in the Lower Rio Grande Valley of Texas, and installed two 10-foot Stick Removers on his bur machines. At the end of the 1956 ginning season Colley said, "We believe we consistently made the highest grades in the area. We have sold our machine-picked cotton for the same price as our hand-picked. It is impossible," Colley added, "to put into words the fine work the two 10-foot machines have done. You just have to see them in operation to appreciate them." Colley stated that he followed the advice of the manufacturer as to the amount of machinery needed for his type of cotton and it proved exactly to meet the requirements for that area. He was born in Port Arthur, Texas, and graduated from the University of Texas after service in the Air Force. A member of St. Mark's Methodist Church, he and his wife make their home on a farm near McAllen.

The HARDWICKE-ETTER GREEN LEAF & STICK REMOVER



Cutaway drawing shows typical recommended high efficiency drying and cleaning installation

The *Hardwicke-Etter* GREEN LEAF and STICK REMOVER attachment to the Big Bur Extractor removes green leaves, sticks and pin trash at the most effective point in the overhead cleaning system.

LESS HORSEPOWER

Two Hardwicke-Etter 10-foot Stick Removers use LESS THAN 7 horsepower for 240" of extractor cylinder length as compared to the 20 horsepower required for 240" in four of the 60" machines.

★

LESS TO INSTALL

This type of installation needs NO additional separator. Also permits the use of existing conveyors and distributor. Takes up less room, uses the big bur extractor as high-efficiency feeder.

HIGH-SPEED DYNAMICALLY BALANCED saw cylinders, mounted on ball bearings, *forcefully* throw leaves, sticks and trash from the cotton through a series of grid bars which are of proper diameter and correctly spaced to accomplish the extraction *without rough handling*.

NO GOOD COTTON WASTED INTO TRASH ★ EXTRACTION WITHOUT MACHINING OR PRE-GINNING ★ SAVE WASTED TIME AND COSTLY SEED DOCKAGES

PRECISION MANUFACTURED to the high standard of quality established by *Hardwicke-Etter* for their complete line of gin machinery, this splendid machine is *indispensable* to the modern, high-capacity gin plant. All steel construction gives greater operating efficiency with exceptionally long life of service. 10-ft. and 14-ft. sizes, adaptable to all gin plants.

Now Making Immediate Deliveries for Mid-Season Installation

WRITE OR CALL HARDWICKE-ETTER CO., SHERMAN, TEXAS
FOR LOCATIONS OF MACHINES OPERATING NEAR YOU

as viewed from The "PRESS" Box

• Cause: Fire-Packed

"UNQUESTIONABLY, the cause of the fire was a FIRE-PACKED bale."

This quotation, from a recent report of the Cotton Warehouse Inspection Service, is repeated too many times each season. In this particular case, the gin operated until 1:30 a.m., then shut down and left 52 bales of newly-ginned cotton on a platform attached to the gin building. There was no watchman. When a gin crew reported for work at 5:30 a.m., the fire had gained such a start that it was useless to try to save the 52 bales—the crew was lucky to save the building and machinery.

No editorial comment is needed on such an incident; it should be a timely reminder for every ginner that adequate protection against fire-packed bales pays off.

• Carry-Over Hiked

THE COTTON CARRY-OVER estimate at the beginning of the current season has been increased by the Bureau of Census to 14,539,624 bales. This upward revision, says the Department, is based largely upon later estimates of cotton in transit on July 31. Net exports last season are estimated at 2,228,969 bales and consumption at 9,202,315 bales.

• Snow White, Long Green

A UNIQUE TITLE, "Snow White and the Long Green", was chosen recently for a panel discussion before a meeting of the Lubbock Women's Club. Cotton, of course, was the subject, discussed by Charles Signor, banker and former oil mill executive; Don Jones, Lubbock Experiment Station; and Harold Loden, Paymaster Farm.

• New Cotton Blower

A NEW COTTON PICKER ATTACHMENT is attracting attention on the Pacific Coast. It is a blower developed by Ed Burns, a cotton farmer of Porterville, Calif. Installed on the mechanical picker, the blower is said to result in higher grades of cotton. A specially-designed screen makes possible continuous operation through smooth flow of lint through the blower unit. Dirt and debris is sucked out of the cotton as it reaches the screen and discharges it to the ground. Warm air from the cotton picker motor tends to dry and "fluff" the cotton.

• Ranges Very Poor

RANGE CONDITIONS in Western Range States on Sept. 1 were at the lowest point since the historic drouth of 1934, USDA reports show. This is the fifth year in which ranges have been below average condition, and the supply of pasture and feed for winter is far below winter needs, especially in the Southwest. USDA reports, however, that over-all crop conditions in the U.S. improved during August, with estimates increased for soybeans, flaxseed and a number of other crops. Soybean output is forecast at 462 million bushels, a record high and 90 million more than in 1955.

• Sisters Grow Cotton

FIVE SISTERS—ranging in age from 61 to 80—operate the Robinson Farm near Bethel Springs, Tenn., running the tractor, spraying cotton insects and doing other work. The sisters are training the grandchildren and great-grandchildren of the only sister who married, to carry on the farming operations.

• Tour Cotton Area

REPRESENTATIVES of the American Textile Machinery Association toured the Mississippi Delta area Sept. 17-19. They made a study of problems related to cleaning cotton at mills, visited seed breeders, gins, Delta Branch Experiment Station and U.S. Ginning Laboratory and other points.

• Fiber Labeling Bill

COTTON industry leaders are continuing to focus their attention on action initiated in the last session of Congress to pass legislation requiring labeling of all textiles to show true fiber content, the Delta Council points out. About four-fifths of the cotton articles now on the market are not identified as such, and cotton is losing each year the benefit of some $8 to $10 million worth of national advertising. Opposition to the bill has come from furniture manufacturers, who are opposed to the mandatory labeling of upholstery fabrics.

• It's All in the Mind

FEEL BAD? If you are a business executive, it may be all in the mind. Research Institute of America reports that a survey showed that executives as a group are not sicker than other men of the same age, but they think they are. Annual examinations reveal that there are about twice as many complaints as ailments.

• Woodlots Profitable

WOODLOTS brought U.S. farmers an income of $130 million dollars in 1954, the latest Census Bureau figures show. Georgia and Oregon, with $14 million each, led in revenue from this source.

• Era Hikes Canine Anxiety

PROSPERITY has its drawbacks, as many a mutt would testify if he could. Canine mental cases are on the increase, says one New York medical consultant. "Because dogs are intelligent and sensitive animals, they often assume the tensions and neuroses of their masters," he says. Most pet hospitals and boarding houses provide rest cures and reconditioning treatments for animals. A dog who's suffering from the tensions of the day will go through a two-week regimen of rest, regulated diet and tranquilizing drugs. "The real cure," confides one veterinarian, "is separation from the master for awhile."

• Hardwood for Paper

"SOFT" HARDWOODS may become another source of income for Cotton Belt farmers and of raw material for the paper industry. Alabama Extension Forester Ivan R. Martin reports that a Mobile firm is making a paper facing for gypsum board from "soft" hardwood pulp from cottonwoods, poplars, sweet gum and similar trees.

• Nation's Demands Rise

DEMAND for farm products in this country by 1957 may be 40 to 45 percent more than in 1953, according to Rex F. Daly, USDA. Use of livestock products is expected to increase more than use of crops. The estimate is based on assumptions of a growing population, labor force and employment. It also assumes the world trend is toward peace.

• Mill at Pine Bluff Damaged by Fire

PLANTERS COTTON OIL MILL, Pine Bluff, Ark., suffered damage tentatively estimated at $75,000 to $100,000 from a fire on Sept. 16.

I. W. Dunklin, manager, says that the principal damage was in the room containing the boiler and four screw presses. The fire began in the pit of a steel elevator and reached the wooden ceiling of the building, spreading rapidly. An adjoining room, used to store meal, was partly destroyed and 150 tons of meal damaged by the fire and water.

The mill's hydraulic presses were not involved in the fire and can be operated, but it will be about a month before the mill resumes full production.

Agricultural Workers

Texas Agricultural Workers' Association, professional agricultural organization, will hold its 1957 annual meeting at Texas A.&M. College, College Station. Meetings will be in the Memorial Student Center, Jan. 10-11.

Fred Shaw, Texas Research Foundation, Renner, is president of the organization; and Dr. R. E. Patterson, Texas Experiment Station, is chairman of the program committee. The Association is holding its thirtieth annual meeting.

Fair Unfair Says Man Who Should Know

State Fair of Texas President Robert L. Thornton has announced that no rain insurance will be carried by the nation's largest agricultural exhibition, which has paid out $20,000 more for rain insurance than it has collected since 1927. It wouldn't be quite fair to the City of Dallas, added Banker Thornton. He speaks with authority, for he also is mayor of Dallas, which is paying $35,000 a year to a rainmaker to produce rain for the city which houses the Texas Fair. Now, amateur weather prophets are betting that the Southwest's prolonged drouth will be broken between Oct. 6 and Oct. 21, the dates of the State Fair.

• Production Meeting In Birmingham

THE LATEST experimental results in various phases of cotton production will be highlighted at the second annual Beltwide Cotton Production Conference at the Tutwiler Hotel in Birmingham, Dec. 13-14.

The conference is sponsored by the National Cotton Council in cooperation with Cotton Belt land grant colleges, USDA, agricultural chemical industry, farm organizations and others in the industry.

The program for the meeting will bring into sharp focus the latest experimental results on insect and disease control, chemical weed control, fertilization, defoliation and other phases of cotton production. The program also will probe into the cost-cutting and quality improvement potential of additional coordinated research on production problems, and then will show how progress in these areas would strengthen cotton's ability to fight for markets.

Increase in Pakistan's 1955-56 Cotton Crop

The government of Pakistan has reported the 1955-56 cotton acreage at 3,537,000 acres, and production at 1,420,000 bales, in the fifth final estimate for the season. These figures represent an increase over earlier estimates, and compare with the area of 3,185,000 acres and production of 1,300,000 bales for the 1954-55 crop, says USDA.

■ **DOTY ECHOLS, daughter of CARSON ECHOLS, co-owner of Patricia Gin Co., Patricia, Texas, was named District Six Farm Bureau Queen recently, and is the area's entrant in the state contest Nov. 12 at Houston.**

Oil Chemists' Society Meets Sept. 24-26

The American Oil Chemists' Society is holding its annual fall meeting at the Sherman Hotel, Chicago, Sept. 24-26. A. V. Graci, Jr., is program chairman. Among the major topics to be discussed are oil modification, analytical work, safety, nutrition, processing and synthetic detergents.

Cotton Yields Are Doubled On Guar-Planted Land

Guar is coming to the forefront as an outstanding soil improving crop in the Big Spring area of Texas.

Jim Fryar, a cooperator with the Martin-Howard Soil Conservation District, farms four miles north of Big Spring. In 1954 he planted 90 acres of guar. He harvested part of his acreage of guar, getting only about 200 pounds of seed per acre. In 1955 this guar land was planted to cotton. Fryar gathered 65 bales on 72 acres. Most of this was on land that grew guar the year before. On land where cotton followed cotton, the yield was a little over one-third of a bale to the acre.

Soil Conservation Service technicians took boll counts on Fryar's cotton a week before boll pulling started. On the guar land they measured off a 15-foot row and counted 125 bolls of cotton. On the same length of row where cotton followed cotton, they found only 60 bolls.

Fryar is sold on guar, and he plans to plant more of it. Many farmers intend to follow his example.

Textile Import Damage Outlined at Hearing

How uncontrolled textile imports are injuring domestic industry was pinpointed by a pillowcase manufacturer, Sept. 11, in testimony before the U.S. Tariff Commission.

W. E. Reid of New York, president of Riegel Textile Corp., said that imports of print cloth pillowcases from Japan rose in 1953 to 790,000 units, to 1,322,000 in 1954, then skyrocketed to 11,725,000 in 1955.

Quoting findings made by the Tariff Commission that domestic production of print cloth pillowcases ranges from 10 to 20 million units a year, he pointed out that Japanese sales in the U.S. are now approaching, if not exceeding, total U.S. output.

Because Japanese mills pay wages less than 20 percent of U.S. textile wage rates and pay 25 percent less for cotton, comparable Japanese-made pillowcases are being sold by importers at less than the Riegel cost of production, he said.

Farm Equipment Convention Being Held in Chicago

The annual convention of the Farm Equipment Institute is being held in Chicago, Sept. 24-26. Manufacturers of farm equipment and their suppliers from all sections of the U.S. and Canada are attending the convention.

In announcing plans for the 1956 convention, Frank Hamlin, president of the Institute, said, "The farmer is faced with the same problem as the manufacturer—that of reducing his production costs; and the one sure road is substitution of machines for the ever increasing cost of labor. Being a good business man, the farmer may be expected to do this in 1957, and in the years ahead."

New Bulletin

INFORMATION ISSUED FOR FATS AND OILS INDUSTRY

Bulletin No. 2515, recently published by the Chemical Plants Division, Blaw-Knox Co., Pittsburgh, Pa., describes and illustrates "Plants and Processes for the Fats and Oils Industry."

Prepared especially for the animal and vegetable fats and oils industry, the 24-page bulletin describes equipment which offers economy in the extraction and preparation of these products. Processes covered are extraction, refining, distillation, deodorization, fat splitting, hydrogenation, fatty-acid separation, etc. Numerous tables list the performance and economics of typical installations.

More detailed information on any of these processes may be had by writing Blaw-Knox Co., Chemical Plants Division, P. O. Box 778, Pittsburg, Pa.; or by writing to The Cotton Gin and Oil Mill Press, P. O. Box 7985, Dallas.

Texas Cottonseed Crushers' Association Photo

New Cotton Will Be Available in 1957

BLIGHTMASTER COTTON, the new disease-tolerant, stormproof cotton developed at Texas Agricultural Experiment Substation at Lubbock, is shown in these pictures. On the left, J. H. Roberson, Lockett Gin, Ropesville, Texas, holds two typical plants showing fruiting habits of the new variety. On the right, Lavon Ray, breeder at the Lubbock Station, examines stripped plants on the Frank Gray Farm near Lubbock. Blightmaster seed is being multiplied this season to make certified seed available for planting in 1957.

Research Meeting Planned

A short staple research conference will be held Nov. 1-2 at Lubbock, W. O. Fortenberry, president, Plains Cotton Growers, Inc., has announced. Leaders in research and cotton activities from all parts of the nation will be invited.

• 40,000 Will See Demonstration

FORTY THOUSAND PERSONS are expected at the farm machinery demonstration at which John Deere Plow Co., Chamblee, Ga., and dealers in five Southeastern States will show 1957 tractors in action at John Deere Training Farm, DeereAcres, Monroe, Ga., on Oct. 4.

There will be continuous exhibition throughout the day of 169 tractors and 255 machines.

The demonstrations will begin at 9:30 a.m. with a signal for the simultaneous starting of over 100 tractor outfits. Demonstration will continue until 3:30 p.m.

In addition to demonstrations of modern farming operations, John Deere's complete line of industrial tractors and allied equipment will be demonstrated in trenching, pipelaying, logging, dam building, and material handling operations.

The award-winning conservation practices on this modern training farm, DeereAcres, will be highlighted with the cooperation of representatives from the Upper Ocmulgee River Soil Conservation District through whose cooperation the training farm has become a conservation show place.

■ ED LIPSCOMB, director of public relations and sales promotion for the National Cotton Council, has been named chairman of the public relations committee of the White House People-To-People conference.

Grade Better, But Staple Is Shorter in Early Cotton

Grades of early season ginnings have been higher in 1956 than a year earlier, but the average staple length has been slightly lower, USDA reports. The grade index to Sept. 1 (Middling White equals 100) was 98.5 as compared with 95.7 a year ago.

By states, the grade index for 1956 was as follows, with the 1955 index to the same date shown in parenthesis: Alabama, 97.3 (98.5); Arkansas, 99.8 (98.6); Florida, 97.6 (99.2); Georgia, 98.6 (98.4); Louisiana, 98.6 (59.9); Mississippi, 99.7 (98.4); Missouri, 101.2 (no report); South Carolina, 97.8 (98.5); Tennessee, 99.9 (no report); Texas, 98.3 (94.3).

States not listed did not have sufficient ginnings for a representative report.

Germans Increase Use Of Margarine, Lard

German consumption of margarine and lard increased last year, USDA reports; and total food fats use, 1,540,000 metric tons, was 5.3 percent greater than in 1954. Lard and fatback accounted for 23 percent of the total fats and oils consumed.

Margarine consumption was 27.1 pounds per capita, one pound more than in the previous year; and accounted for 41.7 percent of the total per capita fats consumption.

Will Export Olive Oil

Olive oil is being exported from Argentina, which traditionally is an importer of this edible oil. USDA reports that 3,000 tons of olive oil were carried over from the 1955 crop, 5,500 tons are being produced this year and 1957 is expected to see a large output.

Heads 4-H Committee

HARRY S. BAKER, president of Producers Cotton Oil Co. of Fresno, Calif., and president of National Cottonseed Products Association, has accepted an appointment by the National 4-H Club Foundation to serve as chairman for a program to raise funds in the cotton industry.

He Explained It to His Customers, and

Seed Cotton Grouping Has Worked Well

HOW CAN a seed cotton grouping program be put into effective operation?

This question often arises in any discussion of the trend of the last year or so toward separate grouping and ginning of hand- and machine-picked cotton on gin yards. Unfortunately, no set of rules or procedures are available to answer the question.

Ginners may profit, however, from the experience of others, such as Allen Helms, manager of the Carruth & Thweatt Gin Co., Jericho, Ark. He has instituted a seed cotton grouping program at his gin with results which he considers highly satisfactory to all concerned. Success of the program was based on mutual understanding on the part of Helms and his customers of the reasons for grouping and the dollars and cents gain to farmers.

• **Plan Explained to Farmers**—Here's how that mutual understanding developed concerning this plan to group trailers of seed cotton of similar moisture and trash content for proper ginning.

Near the start of the ginning season in 1955, Helms went to his local County Agent and asked him to call a meeting to discuss the problems involved in ginning machined cotton. (Due to the proximity of the Memphis labor supply, spindle pickers were not used to any degree in the Marion area until last year.) The agent agreed to call the meeting, and Helms made a special effort to get word around to his customers and urged them to attend.

In substance, the following information was presented and discussed at the meeting:

It was agreed that the grouping plan is a radical departure from the historical custom of ginning the grower's cotton on a "first-come, first-served" basis. It was also agreed that the grouping plan is a direct outgrowth of progress made in the harvesting of cotton with machines.

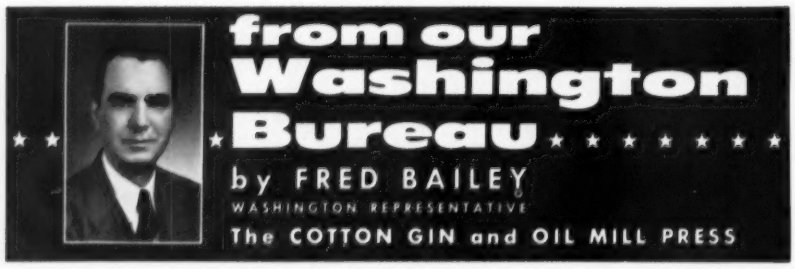
The ginner is anxious to help each grower obtain the maximum number of dollars from his bales of cotton. But this has become very difficult to do in areas where the ginner gets a large volume of both hand- and machine-picked cotton—unless the ginner follows a grouping plan.

Machine-picked cotton contains from three to five percent more moisture and from 120 to 150 pounds more trash than cotton picked by hand. Therefore, it requires more dry-

(Continued on Page 24)

By HERSCHEL McRAE

Production and Marketing Division
National Cotton Council



• **To Export Five Million Bales**—Officials here, and also farm leaders, now predict exports of cotton in this marketing year will reach the five-million-bale goal regarded as the "historical U.S. share" of foreign markets. Big reason is the new law requiring competitive pricing of our fiber in world markets.

Whether the program will endure is questioned. One criticism is that it will encourage government domination of markets (export supplies are largely coming from government stocks). There is little question that competitive pricing will work for a while.

Exporters already had acquired from CCC, through Sept. 4, almost 3.5 million bales which must be shipped this season. Total exports last season were only 2.2 million bales.

Helping the export program will be added U.S. government aid (loans and outright grants) to foreign nations which import our cotton and other products. A case in point is the arrangement with India involving shipment to that country of a half-million bales of U.S. cotton in the next three years.

Had the negotiations fallen through, it is likely that little or none of our cotton would be going to India.

There is growing certainty in Washington that U.S. surplus stocks at long last can be reduced this season. Figures being talked point to a cut of one million bales to one and one-half million bales in the last Aug. 1 carry-over (recently revised upward by the U.S. Census Bureau to 14,539,624 bales from 14,100,000 bales.)

That looks like a reasonable, even conservative, guess.

Official estimate is for a 13,115,000-bale crop this year, based on Sept. 1 conditions. Assume domestic disappearance this year at about the 9,200,000 bales of last year, and exports of five million bales; this gives you a total demand figure in excess of estimated output of just 1,200,000 bales—or the amount surpluses could be reduced.

The soil bank provides another reason for official optimism as to the future. Nobody can yet tell for sure how much cotton acreage growers will bank next year, but estimates run up to four million acres of the national allotment which already has been set at 17,391,000 acres.

Forecast is that growers will put three million to four million bales of this year's crop under loan despite smaller production. By mid-September growers already had put under loan from the current crop more than 200,000 bales.

In its August review of the world cotton situation, the International Cotton Advisory Committee said that supply this season "will still be one of the largest on record," regardless of current production. Big reason is the heavy stocks still on hand in the U.S. Stocks in many other countries had declined at the start of the present season to bring about an aggregate reduction of some two million bales.

• **Helping Little Fellow**—In announcing next year's cotton allotment, officials said they were doing it early because individual farmer acreages would be harder to work out for 1957. Although it hasn't yet been explained by the Department, the reason for the extra work is congressional action taken this year to insure smaller growers at least a few acres.

Congress voted an extra 100,000 acres for "the little fellow"—specifying that this must be in addition to the national allotment of 17,391,304 acres. We are told by cotton folks at USDA that this means the operators of "old" cotton farms will get the smaller of four acres, or the highest acreage planted in the three years, 1954-56.

County reserves this year assured minimums for most small growers, but by no means all of them. The extra acres are calculated to cover such exceptions in 1957.

Growers will be informed of their allotments for next year by county committees before they vote on quotas. The vote likely will be about the same as last year when 93 percent of those voting on Dec. 13 approved quotas for this year's crop. Only a two-thirds majority is required to put quota controls into effect, and nobody here doubts that much more than the required number of voters will once again okay quotas.

Although next year's total acreage will be about the same as this, individual farm allotments in some cases will vary from the recent past. Reason is that the three-year base period changes each year for purposes of calculating a farm's history. The base for this year was the three years 1953-55; for next year it will be 1954-56.

• **Flood Insurance** — Note that government flood insurance is scheduled to be available soon under a new law passed in the closing days of last congressional session. The act provides for federal insurance up to $10,000 per dwelling unit; a maximum of $250,000 for any one person to insure a going business establishment. Insurance will cover water damage of all types, but not wind.

It is expected, says Senator W. Kerr Scott (D., N.C.), a sponsor of the legislation, that the new law will cover "most of the damage" caused by hurricanes. The program is now being worked out with the help of private insurance firms by the government's Housing and Home Finance Agency.

Cash Income from Oilseed Crops

THIRTY-THREE states received cash income from one of the major oilseed crops in sufficient amount to be listed separately by USDA, the revised report on 1955 farm income shows. The following table lists these states and shows the net income received from cotton lint, cottonseed, soybeans, flaxseed, peanuts and tungnuts.

CASH RECEIPTS FROM COTTON AND OILSEEDS
By States, 1955, in Thousands of Dollars

State	Cotton Lint	Cottonseed	Soybeans	Flaxseed	Peanuts	Tungnuts
	(Add 000)					
California	$223,385	$22,747	$	$ 5,733	$	$
Texas	624,350	70,696		243	27,572	
New Mexico	39,574	4,918			658	
Arizona	130,515	12,901				
Oklahoma	59,015	7,138	814		13,368	
Louisiana	94,266	9,177	2,587			57
Arkansas	232,250	25,983	36,379			
Mississippi	306,235	32,858	18,208			249
Alabama	168,855	15,596	4,641		24,618	
Tennessee	97,349	9,304	6,776			
Kentucky	1,541		4,892			
Florida	4,220	406	1,522		6,077	859
Georgia	123,931	11,319	1,012		59,848	
South Carolina	97,247	8,302	4,541		1,098	
North Carolina	53,656	4,832	10,590		26,271	
Missouri	60,863	6,388	76,629			
Minnesota			104,796	25,359		
Iowa			100,665	739		
North Dakota			1,675	81,450		
South Dakota			5,428	17,390		
Virginia	1,631		6,906		22,465	
Montana				1,837		
New Jersey			1,086			
Pennsylvania			558			
Ohio			68,797			
Indiana			116,156			
Illinois			212,470			
Michigan			8,006			
Wisconsin			2,411			
Nebraska			7,031			
Kansas			6,331			
Delaware			3,216			
Maryland			4,495			

Why Protect Cotton Pests Then War on Them?

■ WHY SPEND one-third of the year fighting cotton pests and then spend two-thirds of the year protecting them? Clemson Extension Cotton Committee recently asked South Carolina cotton growers this question, and it's a good question for producers anywhere who fail to destroy their cotton stalks. Stalks remaining in the field provide the protection weevils and other pests need—stalks destroyed as soon as possible reduce the insect population for the coming season and add organic matter to the soil. Experiments and experience in many parts of the Cotton Belt have proved, many times, that it's good business to get cotton stalks under the soil as soon as possible after harvest.

Cotton Burs

(Continued from Page 14)

the farmer pays only for the spreading. When this spreading is done by the individual, the cost figure is lessened.

Definite increased yields from one application of burs usually can be noted for a three- or four-year period.

The Lubbock Experiment Station has conducted controlled research on bur treatment of soils for at least three years, and has obtained very interesting yield data. Experiments have been conducted on test plots where 0, 2, 4, and 6 tons of burs were distributed by use of a manure spreader. The results of these experiments are as follows:

Burs Tons Per Acre	Yield—Lbs. Lint Per Acre 1953	1954	1955	Av.
0	379	449	645	491
2	422	537	821	593
4	421	490	1017	643
6	453	555	1143	717

Farmers in Lubbock County want all the burs they can get, according to Dave Sherrill, County Agent, who wrote an article on burs last year for The Press. And, the practice is spreading over the entire Texas High Plains.

Ecuador Restricts Lard, Imports More Tallow

U.S. exports of inedible tallows and greases to Ecuador in the first half of 1956 totaled 5.5 million pounds compared with 3.8 million pounds a year earlier. However, there were no U.S. exports of lard in the first half of 1956 because of the excessively high import duties on this product, says USDA.

In March, 1956, new tariff rates for lard and tallows became effective in Ecuador. The current import on tallow and greases valued at 10 cents per pound f.o.b. Ecuador is over two cents per pound. The import duty on one pound of lard worth 15 cents is 28 cents. The very large import duty on lard, therefore, is virtually closing off this market to U.S. producers. The high duties on tallows and greases are also limiting the export market for those products.

Close Spacing Increases Arizona Cotton Yields

Close spacing of two to six inches increased lint yields 9.5 percent and 12.9 percent over spacings of 12 to 16 inches for Upland and American-Egyptian cotton in Arizona experiments reported by USDA.

University of Arizona-USDA workers who conducted the experiments commented that "the yield advantage associated with close spacing was primarily a matter of greater boll production."

Regarding earliness, in the American-Egyptian group, earliness was nearly 15 percent greater at the six-inch than at 12- to 16-inch spacing. In Upland experiments crop maturity "was greatly retarded at the two-inch and four-inch intervals but varied little among spacings of six to 16 inches."

Boll weight varied according to spacing in the Upland group, declining regularly as intervals lessened. In other words, the closer the spacing of plants the smaller and lighter the bolls. In both Upland and American-Egyptian the sharpest decrease occured when plants were spaced closer than six inches apart.

Close spacing affected lint percentage somewhat, resulted in weaker fiber, but had no apparent effect upon fiber length or fineness, the research workers report.

• Midsouth Area Often Needs Irrigation

EIGHT OR NINE IRRIGATIONS per year are needed, on the average, in the Midsouth area, a recent study by A. L. King, U.S. Weather Bureau, Memphis, indicates.

Writing in the U.S. Weather Bureau "Weekly Weather and Crop Bulletin," King said: "A study was made of the daily precipitation record at 14 stations in the heart of the Midsouth for the period 1942 through 1955. These stations represent an area of about 20,000 square miles and extend for about 200 miles in a north-south direction and about 100 miles in an east-west direction.

"It was decided to irrigate during June, July, August, and September when there was a period of 10 consecutive days with 0.50 inch or less of rain on any one day; during the remainder of the year, irrigate when there was a period of 15 days with no more than about 0.50 inch in any one day. The greatest number of irrigations indicated at any one station in any one year was 16; the least, three. The average number of irrigations per year per station was eight or nine."

King has made a detailed study of Memphis weather records from 1872 through 1955, and his findings include the following facts: During the cotton season (taken as March 20-Sept. 15) there were drouth periods in 81 years of the 84-year record; the average was three periods totaling about 67 days during that season. For the entire year, the average has been about 151 drouth days, divided into six periods. In the 84-year record, 529 drouth periods occurred—262 in the first half and 267 in the second half. Drouth lengths varied from 14 to 103 days. Futhermore, the study indicates that:

There is little correlation between total annual rainfall and the total number of drouth days during a growing season.

Total monthly amounts of rain are of little value in detecting drouth periods, unless little rain falls throughout the month. Many months in serious drouth years may have rainfall much above normal, but in a considerable number of cases the rain falls at an excessive rate, much of it runs off, and crops receive little permanent benefit.

Rainfall at one location must be studied in detail using daily values to learn what an individual farmer may expect. For ideal results, in actual practice, each farmer should have his own rain gauge and keep a permanent rainfall record.

The 84-year record at Memphis does not show any definite trend or permanent change in total annual rainfall amounts, but it does show a trend toward less total rainfall in the warmer months (and more in the cooler months) in the last half of that record. As a result, there is increasing difficulty in preparing seedbeds for winter crops and in obtaining enough moisture to germinate seed and maintain growth of crops.

Favors Moving Exchange

The proposal to move futures trading of the New York Cotton Exchange to Memphis, made by Memphians, is favored by Thomas E. Avent, president of the Fresno Cotton Exchange. While it would have little effect on the industry in California, said Avent, "such a move would put trading operations closer to the cotton growing area."

Soybeans on South Plains

About 20,000 acres of soybeans are being harvested this year on the South Plains of Texas.

Seed Cotton Grouping

(Continued from Page 21)

ing and cleaning in the gin in order to maintain grade and preparation at a comparatively high level for the producer.

The ginner faces a most difficult situation when part of his customers pick by hand and part by machine. He often receives trailers of cotton harvested by both methods, one behind the other. If he gets his driers and cleaning equipment to properly gin machine-picked cotton, he cannot do the best job on the hand-picked. The same principle applies in reverse. Gins are simply not flexible enough to make the needed adjustment in their drying and cleaning process between bales without an impractical time lapse, Helms explaned to his producers.

Dollars and cents examples were put on a blackboard and explained in detail. The explanation went something like this:

Assume—for the purpose of illustration—that a hand-picked bale ginned "correctly" according to USDA Gin Research Laboratory recommendations, will turn out Middling 1-1/16 inch 500-pound bale with a lint moisture content of six to seven percent. This bale is worth—based on the 1955 loan, average location—35.50 cents per pound or $177.50 per bale. Take the same load of cotton and gin it immediately behind a machine-picked bale which has been ginned properly, and you might raise the grade to Strict Middling because of additional cleaning. (Actually, research indicates that only every third bale would be raised a full grade.)

However, the staple would be reduced to 1-1/32 inch, perhaps more, due to excessive drying. The bale weight would be reduced to 481 pounds, due to removal of four additional pounds of trash necessary to get the SM grade and 15 pounds or three percent moisture. A SM 1-1/32 inch is worth 35.50 cents per pound, same as M 1-1/16 inch, and the bale value is $170.75, or $6.75 less than if the bale had been ginned properly. There is a very good possibility that the bale following a machine-picked bale would be plated and would class Strict Low Middling 1-/32 inch. The loss would then be $16.61.

Helms then illustrated what happens under identically opposite conditions:

Assume that a bale of machine-picked cotton ginned correctly would class SLM 1-1/16 inch, weigh 500 pounds, and have a lint moisture content of five to six percent. The 1955 loan price was 33.80 cents per pound, or a bale value of $169.00. Take the same bale of cotton, gin it immediately behind a hand-picked bale which has been ginned correctly and the results would be as follows:

The seven to eight percent moisture content is too high for efficient cleaning and the grade would be reduced to Low Middling 1-1/16 inch. However, the bale weight would be increased to 523 pounds, due to the extra moisture and trash. The price of this cotton would be 31.05 cents per pound. This would give a bale value of $162.39, or $6.61 less than if it had been ginned properly and according to moisture and trash content. Ginning at seven to eight percent and higher moisture could result in "rough prep." In this case, it would class SGO and the loss would be $18.38.

It was pointed out that the figures on the blackboard were based on research facts. Before the meeting closed, the whole problem was discussed throughly.

• **Plan Worked Well** — When harvest season began, Helms put a grouping program into effect. His total season's ginning was about half machine-picked and about half hand-picked cotton from his customers. He set up a pattern to gin off all machine-picked cotton at night and then finish all hand-picked cotton in the morning before he started again on machine-picked.

The grouping program, Helms reports, worked very satisfactorily. His ginning this harvest season will be based on a grouping plan, the pattern of which will depend on the proportion of each type of cotton he receives as the season develops.

From his experience it seems that the number one requirement for successful grouping of cotton is a thorough and complete understanding on the part of the farmers as to why it is necessary and what schedules will be followed in ginning.

Certainly, in today's atmosphere of rising costs of labor, farm machinery, and other production materials, the farmer needs to obtain maximum returns from every bale of cotton he produces and sells.

Though it is rather obvious that the farmer is the man who suffers immediately, there is another aspect of the problem which is becoming increasingly important. The inherent qualities of cotton fibers which have been dried excessively to a three to four percent moisture content are damaged and will cause the mill customer processing the cotton considerable trouble and expense.

Research shows that excessive drying reduces fiber length uniformity, tensile strength, yarn strength, and increases manufacturing waste. It costs the mill about $10 more to process. The effect is the same as raising the price of cotton two cents per pound to the mill, thereby increasing the price advantage already enjoyed by rayon, cotton's largest synthetic competitor.

The only way to minimize this problem at the present time is to group and gin cotton according to the moisture and trash content—such as illustrated by Helms' experience—so that all cotton can be ginned properly as dictated by moisture and trash content.

The grouping idea is certainly not new. Many larger farmers operating their own gins, have followed the practice since they first began to use mechanical pickers on their farms. This, in itself, is a real indication of the value of grouping. A farmer-ginner processing his personal cotton would not do so if it didn't mean a dollars and cents gain. Since he gins his own cotton, he understands the dollar value of the plan.

IF

If you can keep your head when all around you
Are losing theirs on gambles left and right,
But making gobs of money in the process;
You start to wonder if you're very bright.
If you had only bought that stock at twenty,
Now selling at a cool two hundred five,
You'd really be on easy street, forever,
Instead of struggling just to keep alive.
If you had kept that farm your father left you,
Where now a fancy supermarket stands,
You'd never have to skimp to buy the groc'ries;
You'd have a good sized fortune on your hands.
If you had bet that long shot at the races,
Which came in paying thirty-five to one,
You could have put an end to monthly payments
And thumbed your nose at every nasty dun.
If you had sought uranium in the mountains
Instead of hunting hapless ducks and deer;
Who knows, today you might have many millions
And not be sobbing sadly in your beer.
If you had married Bess, the boss's daughter,
Instead of Mabel, bless her simple soul,
Or better yet, that rich but sickly widow,
You'd now be starring in a playboy's role.
If you had not been you, but Joe or Charlie,
Whose ventures always turn to solid gold,
While you are getting poorer by the minute;
Your ulcers then at least would be consoled.
If you can dream of all those missed bonanzas,
The Might-Have-Beens that you will always flub,
Yet not completely lose your marbles, brother,
Then welcome to the Second Guessers Club.

BY HERBERT A. LEGGETT, EDITOR, "ARIZONA PROGRESS," PUBLISHED BY VALLEY NATIONAL BANK, PHOENIX.

• Cotton Breeders Hold Research Meeting

COTTON SCIENTISTS throughout the cotton growing region, at a recent conference in Chickasha, Okla., investigated the need for cotton research and exchanged data on research progress as carried out by agricultural colleges.

Known as the S-1 Conference to the researchers, the three-day meeting, which attracted nearly 50 cotton workers, is alternated among Cotton Belt States annually. Authorities regard it as an intensified research briefing concerning the genetics and cytology of cotton.

They toured the 300-acre Cotton Research Station near Chickasha and judged the cotton being grown for its quality, yield and disease resistance. High fiber quality cotton with resistance to bacterial blight was eyed closely by the researchers. Irrigated and dryland cotton plots were compared as to their performance during the Oklahoma drouth.

A breeding line of particular interest was a male sterile line that Oklahoma A&M College agronomists regard as a potential for the development of the nation's first hybrid cotton. Norman Justus, an Oklahoma A&M graduate student doing research at the Station, is responsible for its development.

A committee headed by Dr. C. F. Lewis, Texas A&M agronomist, submitted a proposed report that is aimed to standardize and simplify the genetic cotton symbols that are in use today. The genetists feel that present symbols contain numerous subscripts that make it hard for secretarial work. These symbols represent different genetic characteristics of the plant.

A spokesman from Mississippi State pointed out a definite relationship between the density of hairiness on cotton leaves and the amount of damage caused by thrips. Smoother leafed plants contribute to ease at harvesting, and the Mississippi scientists have developed a plant that shows possibilities of losing much of the hair coat before harvest.

DR. C. F. LEWIS, left, Texas A. & M. agronomist; Dr. John Green, Oklahoma A. & M. agronomy professor, and Wolfgang Wessling, a graduate student at North Carolina State from Germany, examine some newly developed Oklahoma cotton strains for resistance to angular leaf spot or bacterial blight, a major cotton disease. These scientists were drawn to the Oklahoma Research Station near Chickasha, for the S-1 conference, a cotton breeding research meeting that convened recently in Chickasha.

Classified Advertising

RATES AND CLOSING DATES: Ten cents per word per insertion. Include your firm name and address in making word count. Minimum charge $2.00. Copy must be in our hands by Thursday morning of week of issue. Please write plainly.

Oil Mill Equipment for Sale

OIL MILL EQUIPMENT FOR SALE—Rebuilt twin motor Anderson high speed expellers, French screw presses, stack cookers, meal coolers, four-teen inch conditioners, filter presses, oil screening tanks, complete modern prepressing or single press expeller mills.—Pittock & Associates, Glen Riddle, Pa.

FOR SALE—Filter presses; screening tanks; single and twin motor Anderson Super Duo expellers, with conditioners; several extra 36" cooker dryers and conditioners. All steel linter baling presses; 141-176 saw linters; seed cleaners; No. 153 separating units; bar hullers; lint beaters; stack cookers; rolls; hydraulic press room equipment.—V. A. Lessor & Co., P. O. Box 108, Fort Worth, Texas.

FOR SALE—Used 176- and 141-saw Carver linters with pneumatic units; also filers, gummers, elevating and conveying equipment and other miscellaneous oil mill equipment. All in excellent condition. —Valley Machinery & Supply Co., P. O. Box 2252, DeSoto Station, 612 E. Main St., Memphis, Tennessee.

FOR SALE—Complete equipment from a 100-ton cottonseed oil mill being offered piece by piece or in a lump sale at name your own price. All machinery in good operating condition. Included are presses, cookers, linters, beaters, arbors, hullers, rollers, hopper scales, seed cleaners, attrition mill, saw sharpeners, bagging, scales, elevating and conveying along with 100-ton F-M track scale and 35-ton Howe weightogram truck scale. 209 feet of steel tunnel. 500-h.p. natural gas, fully automatic engine. Storage tanks. Loading and unloading equipment. Nothing has been removed as yet from this complete oil mill. List available to interested parties.—J. E. Higgins & Company, 3109 Peachtree Drive NE, Phone, Cherokee 6071, Atlanta, Georgia.

FOR SALE—Anderson Super Duo expellers. Filter presses. 72" and 85" cookers. Butters milling machine. Carver 176-saw Tru-line Gummer. Double box linter press. Attrition mills. Single drum hull beater. 20" to 70" fans. Motors: 75 h.p. and under.—Sproles & Cook Machinery Co., 159 Howell St., Telephone RI7-5958, Dallas, Texas.

FOR SALE—Anderson 24" cooker, new equipment, never used, complete with 3 h.p. gear motor drive, 220/440 V., 60 cycle, 3 phase, variable feeder mechanism.—Skippy Peanut Butter Division, Minneapolis, Minn., Phone West 9-7871.

INSPECTIONS and appraisal. Dismantle and installation.—Oscar V. Shultz, Industrial Engineering, Phone BUtler 9-2172, P. O. Box 357, Grapevine, Texas.

FOR SALE—Three iron frame 141-saw linters and 4 iron frame 176-saw linters—all equipped with Carver steel head brushes, breast, breast ends, rib rails and ball bearing floats, independent brush and saw drives, and condensers. 12 iron frame 141-saw linters, same equipment as above except have idler swing drives for brush and saws. One 4-high 85" Buckeye cooker. One 30" Sprout Waldron attrition mill direct connected to 2-40 h.p., 3-phase 60 cycle 550-volt motors with starter; one 36" Bauer Bros. attrition mill direct connected to 2-50 h.p. motors, 3-phase, 60 cycle, 220-volt (no starter). One set 5-high crushing rolls, plain bearings, with oil pressure system (rolls reground once since new). One square iron frame hull packer, one 48" Bauer pneumatic seed cleaner, one 48" Bauer No. 154 seed cleaner, one 54" Atlanta utility seed cleaner. Other good oil mill machinery. —J. E. Lipscomb, Box 716, Phone 2-5901, Greenville, S. C.

Gin Equipment for Sale

FOR SALE—Cotton gins, oil mills, compresses. Contact M. M. Phillips, Phone TE5-8555, P. O. Box 1288, Corpus Christi, Texas.

SPECIAL BARGAINS—Steel separators: two 70" and one 50" Hardwicke-Etter flat screen, one 72" Continental, one 52" Murray VS, and one 48" type M and one type C Lummus. Several batteries of 60" and 66" Super Mitchell extracting feeders completely reworked and refinished. One Mitchell conveyor distributor for left-hand outfit. One 7-cylinder and one 9-cylinder Hardwicke Etter all-steel type I 50" cleaning system. One 12-cylinder and one 16-cylinder 52" Stacy cleaning systems with hot air attachments. Can install grid bar screens in Stacy cleaners if desired. Several nice electric motors in practically all sizes. One 34' by 9', 40,000 lb. capacity Howe motor truck scale, still installed, and equipped with concrete deck, type recording beam and State seal of approval. One 230-h.p. 12-cylinder M and M gas engine, like new. New V-sheaves, open end V-belting and fasteners, steel conveyor, trough, and general line of transmission equipment. New Government-type tower driers and equipment. Hundreds of other excellent miscellaneous items of machinery and supplies in Waco stock and available for prompt shipment. For the largest, oldest and most reliable source of used and reconditioned gin machinery, contact us. Qualified graduate engineer to assist you with any of your machinery problems at no obligation. Call us regarding any machinery or complete plants you have for sale or trade.—R. B. Strickland & Co., 13-A Hackberry St., Telephones: Day 2-8141, Night: 3-7929, Waco, Texas.

FOR SALE—Long stroke one-story down-packing all-steel Murray press complete with tramper, 14' steel Murray bur machine completely rebuilt all new saw drum cylinder, brush cylinder, and directional cylinders, 52⅝" Murray separator and vacuum dropper complete, new Hardwicke-Etter short stroke tramper complete with kicker and charge box, Lummus one-story down-packing wood press complete with tramper, Cen-Tennial tramper, EJ tramper, Continental ram and casing, 2-80 saw Murray bolt suction gin stands, 3-80 saw brush Continental Model F gins, 3 FEC Mitchell feeders, 3-80 Mitchell steel conveyor distributor, 6-cylinder horizontal Murray cleaner on "V" drives, 72" Continental separator complete with vacuum, one 1½-M Hardwicke-Etter burner, two 1-M Mitchell burners, three #30 Mitchell vaporizers, three 72" 7-cylinder Murray type incline cleaners complete with vacuum fronts, one 35" Sturdivant fan with multi-blade, one 40" Murray fan. All equipment priced to move.—Wonder State Mfg. Co., Paragould, Arkansas.

FOR SALE—One late model down-packing all-steel Murray press and tramper.—Paul Downs, Caraway, Arkansas.

FOR SALE—All-steel down-packing Continental press with long stroke Continental tramper, raised for fast ginning. Practically all new. First class shape. New right angle drive for tramper.—Box QS, c/o The Cotton Gin and Oil Mill Press, P. O. Box 7985, Dallas, Texas.

FOR SALE—Four 80-saw Hardwicke-Etter gin stands with feeder-extractor-cleaners with four cylinder after cleaners. This is late model machinery in good condition at a bargain. One Murray Big Reel dryer, one 50" Hardwicke-Etter separator.—R. W. Kimbell, Box 456, Earth, Texas.

FOR SALE—Government type tower driers, automatic gas heaters, blow pipes, and fittings. We are prepared to deliver and install driers, and any gin machinery in conjunction with drying equipment.—Service Gin Co., P. O. Box 21, Phone 4251, Ville Platte, Louisiana.

Equipment Wanted

WANTED—One standard density up-packing press and tramper in good condition.—Paul Downs, Caraway, Arkansas.

WANTED—Truck scales 40' or longer. 5-80 Hardwicke-Etter gins. All-steel up-packing press. Factory type steel windows.—D. B. Lyle, Phone 5-3898, P. O. Box 587, Pecos, Texas.

WANTED—One late model 80-saw Murray gin; one 60" Mitchell Super Unit; one 60" Super Jem with after cleaner.—Paul Downs, Caraway, Ark.

Personnel Ads

EXPERIENCED in all phases of cotton production, wish to contact firm interested establishing business in Old Mexico.—Box AL, c/o The Cotton Gin and Oil Mill Press, P.O. Box 7985, Dallas 26, Texas.

WANTED—Responsible man wants bookkeeping or other office connection with large volume gin in Texas or Western State. Limited experience managing gin. Long experience selling. Could buy working interest. Reply Box BW, c/o The Cotton Gin and Oil Mill Press, P. O. Box 7985, Dallas, Texas.

WANTED—Night Superintendent. Must be familiar with operation of V. D. Anderson expellers. This is a good job for sober, honest, efficient, loyal operator. References required.—Box CJ, The Cotton Gin and Oil Mill Press, P. O. Box 7985, Dallas, Texas.

Power Units and Miscellaneous

FOR SALE—New and rebuilt Minneapolis-Moline engines, from 35 h.p. to 220 h.p., call us day or night for parts and service.—Fort Worth Machinery Co., 913 E. Berry St., Fort Worth, Texas.

FOR THE LARGEST STOCK of good, clean used gas or diesel engines in Texas, always see Stewart & Stevenson Services first. Contact your nearest branch.

FOR SALE—Power units: 139 h.p. Le Roi D-1000, $1,350; 671 GMC, 130 h.p., $2,000; Twin 671 GMC, 260 h.p., $5,000; RX1SV Le Roi, 400 h.p., $7,500; 75 h.p. RPM Westinghouse electric motor, $500. —Wonder State Mfg. Co., Paragould, Arkansas.

AVAILABLE—Have 50 cotton wagons for lease, capacity 4 bales picked cotton, bed size 14' x 8'. For further information phone, write or wire: Ronnie Round Tire Service, Phone HObart 4-1472, P. O. Box 1316, Donna, Texas.

FOR SALE—No. 1 John Deere cotton picker mounted on JD-50 tractor. Picked less than 25 bales and approximately 73 hours on tractor.—Ramsey Implements, Phone 888, Idabel, Okla.

Cotton Quality Schools Are Held in Arizona

Nearly 400 ginners, producers, machinery men and others from Maricopa and Pinal Counties in Arizona attended recent meetings to discuss cotton quality. Defoliation, harvester operation, drying and other factors involved in proper harvesting and ginning where discussed.

These general meetings have been followed by schools on the operation of four types of mechanical pickers used in the area, under sponsorship of the Arizona Implement Dealers' Association.

• Better Harvesting For Better Seed

TO ASSURE top quality soybean seed at planting time next spring, begin thinking about seed quality before starting harvesting operations, Dr. Edgar E. Hartwig, USDA agronomist, recently said in the Delta Farm Press.

Time of planting studies conducted at Stoneville, Miss., have shown that May plantings consistently give higher seed yields, are easier to keep clean, and produce more superior quality seed than earlier plantings.

In 1955, Dorman soybeans produced from a planting made on April 19 had a germination of 80 percent, while seed produced from plantings made on May 10 and May 31 had a germination of over 90 percent. Anyone wishing to produce beans for seed should avoid early planting.

The adjustment of the combine is extremely important. The cylinder should be run as slowly as possible and still do a good job of threshing. This will usually be approximately 500 revolutions per minute.

Whenever a high percentage of the beans are split in harvesting, there are many others which are injured and will not produce vigorous sprouts. The lower the moisture content of the seed, the more easily it is injured in threshing.

If the cylinder speed is not adjusted to the moisture content of the seed, the sample from mid-afternoon harvesting will include seed that have injured seed coats and which will not produce vigorous sprouts.

Seed with 9.4 percent moisture are subject to injury in threshing or processing. Therefore, it is well not to handle seed this dry if it can be avoided.

A moisture range of from 10 to 13 percent is suggested as a safe range for handling and storing good quality planting seed.

If dry soybean seed containing a small amount of green weed seed are elevated into a bin, the green weed seed will form a core in the center of the bin and with high air temperatures can cause sufficient heating to damage seed germination.

This problem can be reduced by mounting a rotary seed cleaner on the combine. This practice is preferable to cleaning immediately, as green morning glory seed can be removed with ease.

Seed storage studies have shown that seed with 12 percent moisture content change very little in moisture content in storage except for a small layer at the top of the bin if stored in a closed, rain-proof building.

In studies conducted in Illinois, seed put in storage with 12 percent moisture showed no change in grade after two years' storage. However, all bins stored with 14 percent or higher moisture content graded "sample" after storage from January to July.

New Breed of Cotton

The Uganda cotton research station at Namulonge, near Kampala, has developed a new strain of BP52 cotton (called NC55/Q) which is said to be able to compete on equal terms with high-quality Egyptian Ashmouni cotton. It is estimated that it will be at least five years, however, before large-scale production can be accomplished, according to U.S. Foreign Crops and Markets.

Philippine Copra Output Is Estimated Upward

The present outlook for Philippine production of coconut products in 1956 is for a substantial increase from 1955, USDA reports. If the supply and demand situation continues good, and if no destructive typhoons occur, the total volume of copra and coconut oil exports may approach or equal the record quantity of over a million long tons, copra equivalent basis, shipped in 1947.

Exports of copra and coconut oil through June total 522,835 tons, or one-third more than exports in the same period of 1955. Through July, the Philippines exported 520,016 tons of copra, and 57,635 tons of coconut oil.

Whereas the U.S. for years has been the major market for Philippine copra, Western Europe became the major destination during the first half of 1956. Copra shipments to the U.S. dropped 13 percent from 1955.

Labor Hearing Planned

A migrant labor hearing will be held at Austin, Texas, Oct. 5-6 by a subcommittee of the Texas Legislative Council. Following the hearing, revision of laws governing migrant labor will be recommended.

■ **W. C. WHITTECAR, Plains Cooperative Oil Mill, Lubbock, and HENRY JAMES, Ralston-Purina Co., Kansas City, have been appointed to the technical safety committee of American Oil Chemists' Society.**

Refinery Executive Dies At the Age of 60

Frank B. Collins, long-time manager of the Swift Refinery in Memphis and active in Midsouth Fair activities since 1934, died Sept. 11, while undergoing surgery.

Collins, who was 60, had been seriously ill since a coronary attack in January.

Born in Athens, Ga., Collins had been connected with Swift for the past 33 years. Before becoming manager of the Memphis refinery in 1934, he held a similar position with Swift in Houston, Texas.

He leaves his wife; a son, Lt. Otho B. Collins of El Paso, Texas; his sister, Mrs. Bessie Griffeth of Athens, Ga.; and his brother, Llewellyn Collins of Tyler, Texas.

More Oil and Meal; Less Margarine, Mellorine

Trends in production of oilseeds and their products were summarized by National Cottonseed Products Association in a recent Newsletter to members. This included the following:

USDA's Sept. 1 crop estimate, as compared to Aug. 1, indicates an increase in output of edible vegetable oils of 150 million pounds, with a rise in protein meals of 385,000 tons. Totals for both products are at record highs, due principally to the record soybean crop of 462 million bushels.

Margarine production for the seven months ending with July was 755 million pounds, 2.2 percent less than in the same period a year ago.

Mellorine production also was down two percent during the seven 1956 months, as compared with a year ago. The total of 3,590,000 gallons reflected a sharp reduction in Missouri and slight decline in Illinois and Texas, more than offsetting higher margarine output in Arkansas, Oklahoma and Oregon.

New Use for Shotgun as One-Shot Insecticide

■ A NEW USE for shotguns may be developing in Texas. It apparently is the answer to the farmers' plea for a one-shot insecticide that will do away with the necessity for poisoning many times, with different materials. Dr. Freeman Fuller, Jr., Texas Extension entomologist, received a letter from a woman in Indiana, who was told while visiting in Texas that firing a shotgun under the house would eliminate roaches, scorpions and termites. She wanted Doctor Fuller to tell her what size shotgun shells are best, and how many times should she shoot.

■ W. P. LANIER, Buckeye Cotton Oil Division, Atlanta, has been named national chaplain of Theta Chi fraternity.

Oct. 1 Deadline on Gas Tax Refunds

USDA has called to the attention of farmers a reminder from the Internal Revenue Service that claims must be filed not later than Oct. 1, 1956, in order to obtain refund on the federal excise tax on gasoline. Many farmers entitled to the two-cent-a-gallon refund of the tax on gasoline purchased after Dec. 31, 1955, and used for farming purposes the first six months of 1956, have not yet filed their claims.

A farmer may also obtain a refund of the tax on gasoline which was used on his farm by a custom operator or a neighbor in connection with cultivating the soil, or raising or harvesting any agricultural or horticultural commodity.

Claims must be made on Form 2240, a brief, easily-prepared refund form containing complete instructions. The forms are available at Internal Revenue Offices, county agents' offices and many banks and post offices. The filled-in claims should be taken or mailed to the local District Director of Internal Revenue.

• Tupelo Mill Is Sold, To Be Remodeled

WILLIAM KING SELF of Riverside Cotton Oil Mill, Marks, Miss., has announced the purchase of the Tupelo, Miss., Oil and Gin Co.

Self said that the Tupelo plant will be enlarged and modernized, and will become a major distributor of Riverside chemical and fertilizer lines.

Weathering of Cotton

(Continued from Page 10)

vesting conditions leaves must be removed before harvesting, the bulk of the cotton will be in the field from three to eight weeks, the loss in value will run into millions of dollars for Texas cotton alone. The bulk of the Texas crop is Middling grade or lower where the loss to the producer is greatest. The table shows that for 50 days in the field an approximately two grade loss will occur which will cost the producer $33.75 a bale. Under the same conditions the loss in staple will approach 3/64 of an inch which increases the loss to over $35.00 a bale. Loss in staple is proportional to the number of days in the field and can be as great as 1/16 inch for a 10-week period.

The loss in crop value to the state can very easily run into several millions of dollars using the most conservative estimates.

Table 1.—Loss in Value of Cotton Through Field Weathering—Inch Staple

Days in Field	Loss in Staple	Loss in Grade	Loss in Value per Pound	Loss in Value per Bale	Loss per 100,000 Bales
25	1/64 inch	1 (GM-SM)	$ .20	$ 1.00	$ 100,000
50	3/64 inch	2 (GM-M)	.75	3.75	375,000
75	4/64 inch	3 (GM-SLM)	3.60	18.00	1,800,000
100	6/64 inch	4 (GM-LM)	6.85	34.25	3,425,000
25	1/64 inch	1 (M-SLM)	2.88	14.38	1,438,000
50	3/64 inch	2 (M-LM)	6.30	31.50	3,150,000
75	4/64 inch	3 (M-SGO)	10.00	50.00	5,000,000
100	6/64 inch	4 (M-GO)	12.70	63.50	6,350,000
25	1/64 inch	1 (SLM-LM)	3.45	17.25	1,725,000
50	3/64 inch	2 (SLM-SGO)	7.13	35.65	3,565,000
75	4/64 inch	3 (SLM-GO)	8.25	42.25	4,225,000

Table 2.—The Effect of Spacing and Position on Plant on the Physical Properties of Cotton.

Spacing	Position on Plant	Fineness Micronaire	Strength Thous. lbs.	Length U.H.M. Inches	Mean Length Inches	Length Uniformity Percent
40" row 20" apart	upper half	3.9	77.4	1.01	0.86	84
40" row 20" apart	lower half	4.6	77.9	1.04	0.91	85
40" row 30" apart	upper half	3.8	78.8	1.01	0.85	84
40" row 30" apart	lower half	4.6	73.7	1.05	0.88	84

Results: Average of 8 samples.

Table 3.—The Effect of Cotton Fiber Development on the Physical Properties of Cotton.

Stage of Development	Fineness Micronaire	Strength Thous. lbs.	Length U.H.M. Inches	Mean Length Inches	Length Uniformity Percent
Immature	2.5	77.4	0.96	0.74	77
Opened on Drying	3.5	74.3	0.96	0.78	81
Cracked	3.7	86.2	0.94	0.73	78
Opened	4.8	84.2	1.04	0.88	85

• **Chemical Changes Occur** — Besides physical changes in cotton due to weathering in the field, chemical changes also occur. Oxidation takes place in the cellulose molecule which changes the reaction of the fiber. Since some types of dyes are influenced in their adsorption by polar groups in the fiber, dye test on field weathered cotton showed a decrease in dye adsorption with time in the field. Thus, variation in dye shades may be due to field weathering. Another detrimental effect tracable to weathering is degradation of the fiber by oxidation. All cotton is oxidized because of sensitive regions in the cellulose molecule; however, less sensitive areas are oxidized by length exposure in the field and eventually shorten the cellulose chain length. These oxygen bonds are ruptured by alkali boiling as practised in yarn and fabric finishing, and if numerous enough, will weaken the finished fabric.

The difference between the physical properties of cotton on the upper and lower half of the plant are shown in Table 2. The lower part of the plant has the more mature and longer staple, if a separation were possible, a more uniform cotton of better quality would be the result. In Table 3, a segregation

based on boll maturity indicates that a separation into good and poor quality fiber is possible. Since the open cotton was better than one micronaire unit coarser, the length nearly 1/8 inch greater with better uniformity and strength of the more mature cotton was from seven to 10,000 psi greater. A separation based on maturity would tend to eliminate much of the lack of uniformity in present day machine harvested cotton.

• **Fiber Utility** — With mechanical harvesting of cotton on the increase, some thought should be given to determine the effect of weathering in the field on the utility of cotton fiber. Since this data is on a storm-proof variety which is held firmly in the lock, the staining from wind blown soil, the effect of moisture and sunlight should be less than other types of cotton that may string out from the boll. The more the fiber is exposed to the elements the more damage can be expected. Evidence of the sloughing of the protective coating of the fiber is found by the fact that cellulose content of the fiber increases with time in the field. Once the fibrils are exposed, degradation can procede through oxidation and damage can be expected in ginning and processing for yarn. Also when the inner structure of the fiber is left exposed, moisture from due and rain make a more favorable seat of attack for microorganisms.

Long periods in the field open up late season, underdeveloped cotton which adds wasty, tinged and spot cotton to the naturally opened white cotton. This practice adds to the waste loss and lowers the grade and staple materially. The shrinkage of staple comes about through drying and through the shorter bollie cotton. Cotton fiber is subject to changes in length depending on the moisture content. The extent of these changes will depend to a certain measure upon the development or maturity of the fiber. Data on low maturity, late season cotton shows a greater loss in length in field weathering than the more fully developed early season, opened cotton. Information is available to show that a highly developed cotton is higher in crystallinity than underdeveloped fiber (4). A more static crystalline fiber will show less shrinkage than an amorphous fiber which has a more flexible, loose structure. The evidence from this experiment indicates that a permanent shrinkage takes place in the amorphous region, and is the result of a long period of drying under field conditions. The other type of shrinkage is the result of expansion and contraction of the spiral structure, and is contingent on the moisture content of the fiber.

• **Better Mechanization** — These facts indicate that there is a great deal of room for improvement in handling cotton harvesting. Thought should be given to a separation of early and late cotton as practiced under hand harvesting. With a labor shortage as found in most sections of the Cotton Belt, mechanical harvesting will surely increase. Therefore, an effort should be made to separate the crop into at least two catagories for cotton of maximum character, Table 3.

The stripper, which takes open as well as unopen bolls to lump together mature and immature cotton, could very well be developed to make a separation into top and bottom bolls for good and poor character cotton. The picker, which can take the open bolls and leave those unopened, should divide the crop into late and early cotton and thereby gain uniformity for both pickings. The immediate cost economics may not always be in favor of a separation; however, in the long run, the production of superior cotton which will better compete with other fibers cannot be overlooked. Fine, weak and wasty cotton is creating a greater market for other fibers and forcing some mills to turn to synthetics where uniformity of fiber is their greatest asset.

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Filtration-Extraction Is Adapted to Flaxseed

Filtration-extraction can be efficiently applied to the extraction of oil from flaxseed if the preparation procedures are modified to overcome certain characteristics peculiar to this material, says the Southern Utilization Research Branch, ARS-USDA.

Direct solvent extraction of flaxseed has not proved successful in the past, since connective material in the flakes is dissolved by the solvent, causing the flakes to disintegrate. In filtration-extraction, however, the method of preparation hardens this mucilaginous portion of the seed, and fines are minimized by agglomeration so that the material can be extracted directly and efficiently.

Results achieved with various combinations of preparation conditions are presented in detail in a paper, "Filtration-Extraction of Flaxseed as Affected by Preparation Variables." Reprints may be obtained without cost from the Southern Utilization Research Branch, 1100 Robert E. Lee Blvd., New Orleans.

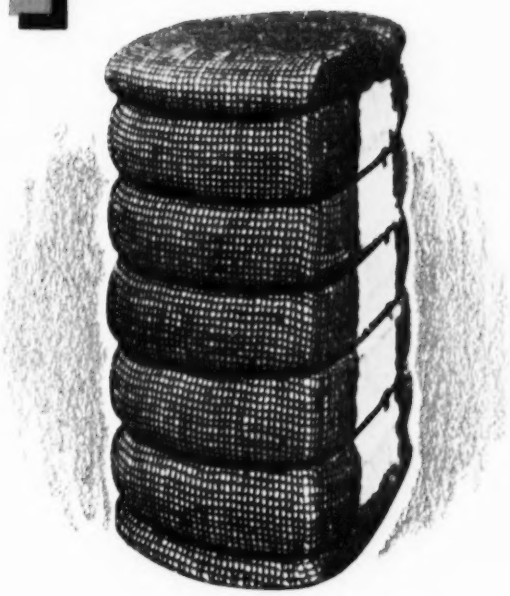
California Crop Good

Cotton harvest in the San Joaquin Valley of California will be in full swing Oct. 1-15, with a larger percentage harvested mechanically than in 1955. This was the prediction of gin managers of Producers Cotton Oil Co. at their annual harvest conference recently in Fresno.

Many farmers expect yields up to three bales per acre.

4 GOOD REASONS FOR USING

Carolina JUTE BAGGING



TAKES ROUGH HANDLING

Stands up well under rough handling . . . protects cotton both in storage and during shipment.

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Open weave admits sunlight and air . . . keeps cotton dry and in good condition. Looks better after cutting sample holes.

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Carolina Jute Bagging is extra strong . . . tested for uniformity. Full yardage and full weight is guaranteed.

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Cotton is subject to less weather damage than that covered with closely woven cloth.

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MANUFACTURERS OF BAGGING AND TIES

September 1 Cotton Report

A U.S. cotton crop of 13,115,000 bales is forecast by USDA's Crop Reporting Board on the basis of Sept. 1 conditions. This prospective production is 437,000 bales under the Aug. 1 forecast. Production last year amounted to 14,721,000 bales and the 1945-54 average was 13,098,000 bales. An estimated 15,661,000 acres are expected to be harvested this year, compared with 17,506,000 acres harvested in 1955. Total abandonment after July 1 is placed at 7.7 percent. Indicated yield per harvested acre of 402 pounds has been exceeded only by the record-high yield of 417 pounds harvested in 1955. The 1945-54 average was 283 pounds.

All parts of the U.S. except the Far West shared in the declining prospects during August with Western States showing the heaviest losses. Prospects declined in both Texas and Oklahoma with cotton deteriorating badly in the latter state. In the central group, prospects declined in all states except Louisiana where the crop held its own during August. Prospective production for the Eastern States was lowered even though there was some improvement in North Carolina and the South Carolina estimate is unchanged.

Cotton ginnings for the U.S. were reported by the Bureau of the Census at 1,512,738 running bales ginned from the crop of 1956 prior to Sept. 1, compared with 1,386,589 for 1955 and 1,694,792 for 1954.

Production of American-Egyptian cotton is now placed at 47,200 bales compared with 42,900 bales last year and the 1945-54 average of 32,900. Details by states follow:

State	Acreage for harvest, 1956[1]	Sept. 1 Condition: Average 1945-54	Sept. 1 Condition: 1955	Sept. 1 Condition: 1956	Lint yield per harvested acre: Average 1945-54	Lint yield per harvested acre: 1955	Lint yield per harvested acre: 1956 indicated Sept. 1	Production[2] 500-lb. gross wt. bales: Average 1945-54	Production[2] 500-lb. gross wt. bales: 1955	Production[2] 500-lb. gross wt. bales: 1956 indicated Sept. 1
	Thous. acres	Percent			Pounds			Thousand bales		
North Carolina	450	73	80	83	321	350	363	457	351	340
South Carolina	677	69	72	73	301	375	379	656	572	535
Georgia	845	68	79	71	252	376	352	675	701	620
Tennessee	540	74	85	77	359	523	511	564	623	575
Alabama	965	68	85	67	281	478	363	880	1,045	730
Mississippi	1,595	71	86	75	340	570	488	1,656	2,023	1,620
Missouri	370	76	85	85	367	502	532	362	410	410
Arkansas	1,365	72	86	73	339	545	519	1,382	1,663	1,475
Louisiana	560	67	73	78	336	454	489	586	582	570
Oklahoma	705	61	77	46	154	281	191	356	463	280
Texas	6,250	70	75	67	194	281	266	3,518	4,039	3,460
New Mexico	179	88	87	94	526	688	764	237	266	285
Arizona	357	92	82	96	656	981	1,129	559	728	840
California	745	93	90	96	659	774	857	1,164	1,205	1,330
Other States[3]	58	—	—	—	284	383	373	47	50	45
United States	15,661	72	81	75	283	417	402	13,098	14,721	13,115
Amer.-Egypt.[4]	39.8	—	—	—	387	500	570	32.9	42.9	47.2

[1] Preliminary. [2] Production ginned and to be ginned. A 500-lb. bale contains about 480 net pounds of lint. [3] Virginia, Florida, Illinois, Kansas, Kentucky, and Nevada. [4] Included in State and United States totals. Grown in Texas, New Mexico, Arizona, and California.

California Cotton Wives To Sponsor Cotillion

The Fresno Cotton Wives Auxiliary will sponsor the annual California Cotton Cotillion on Nov. 2, at which the California Maid of Cotton will be chosen.

The presentation of the candidates for the California title will take place in a pageant at 8 p.m. A dinner dance will follow the presentation of the 1957 Maid of Cotton.

Mrs. A. T. Mann will be the general chairman. Mrs. Milo Erwin and Mrs. William Marion will head the decorations committee, assisted by Mrs. Edgar Orman, ballroom and entrance; Mrs. Fred Roullard, Jr., stage, and Mrs. William Chambreau, tables.

Mrs. Thomas Hutson and Mrs. Richard Day have charge of the menu and sea food buffet; Mrs. George Cavanagh and Mrs. Kirby Cartwright, invitations; Mrs. Gaines Thomas, reservations; Mrs. Wesley McAden, fiance; Mrs. Day and Mrs. Cartwright, printing; Mrs. George Helvey, Jr., and Mrs. Milton Munro, publicity; Mrs. Kenneth Inman, arrangements; Mrs. George Kramer, usherettes; and Mrs. Gerald Brewer and Mrs. Edward Hudson, communications.

Soybean Firm Expands Capacity of Plant

Kansas Soya Products Co. is increasing its Emporia, Kan., plant capacity from 100 tons daily to 200 tons through a $100,000 expansion program.

Defoliation Guide Issued

"If conditions are right, you can defoliate properly . . . if conditions are not right, defoliation is hazardous." This is emphasized in the 1956 Cotton Defoliation Guide issued by the University of California. Authors are G. J. Harrison, V. T. Walhood, F. T. Addicott and Marvin Hoover.

In Foreign Countries

$2.5 Million Will Aid Foreign Cotton Sales

■ **COUNCIL DIRECTORS told domestic development retarded by concern over Japanese textiles.**

Funds to promote sales of cotton outside the U.S. soon will reach $2.5 million, but concern over Japanese textile imports is retarding development of markets by U.S. mills, the National Cotton Council board of directors heard at the meeting in Memphis, Sept. 13-14.

Cotton industry organizations in 14 countries are working with the Council in extending the successful promotion methods it has developed in the U.S., Read P. Dunn, Jr., director of the Council's foreign trade division, reported.

"The most important effect," Dunn said, "is the creation of a new spirit for cotton—replacing defeatism and despair with confidence and optimism. The world industry again believes that cotton has a future and is eager to share in it."

Dunn and Ed Lipscomb, director of the Council's sales promotion division, displayed a table piled high with posters, newspaper ads, fashion photos, merchandising kits, booklets, clipsheets, and other promotional tools which have been adapted from Council originals by cooperating cotton organizations around the world. Such Council projects as National Cotton Week, photo services, "Maid of Cotton" and fashion promotions have been especially successful in other countries, Lipscomb said.

The foreign market development programs are financed on a 50-50 basis by cotton industry organizations in each country and USDA. USDA uses funds from overseas sales of surplus agricultural products under Public Law 480. The Council has contracted with USDA to develop and supervise the cooperative programs in cotton.

Cooperative programs involving total annual expenditures of $750,000 are now in operation in France, Germany, and Japan. Final contracts for programs totaling $500,000 annually are being negotiated in Austria, Spain, Holland, and Switzerland. Legal problems have temporarily delayed a $250,000 program in Italy. Cotton organizations in England, Belgium, Columbia, and Mexico are using their own funds and Council ideas and materials to conduct programs using $600,000 annually. Egypt and the Sudan have allocated about $250,000 per year for cotton promotion.

"The full effect of these programs will have to be measured over a period of years," Dunn said, "since they are all long-range projects. However, some short-term results indicate what we may expect. Cotton's share in high fashion in France has gone from 5 to 60 percent and the Japanese report a 20 percent increase this spring in sales of cotton goods for their home market. Even without these concrete evidences, the creation of confidence and optimism in world cotton would make this a successful year."

• **Domestic Markets** — Dr. M. K. Horne,

Jr., chief economist, said that if domestic fiber consumption had expanded the past seven years in line with all consumption, or 27½ percent, the domestic cotton market in 1955 would have taken about 11.2 million bales instead of 9.2 million, and it would be headed upward at the rate of some 400,000 bales annually, he explained.

"If we were merely getting half as much growth as the whole American consumer market, cotton consumption would be above 10 million bales and trending upward by nearly 200,000 bales annually."

He said, "The real problem of Japanese imports from the standpoint of American raw cotton is not so much that the U.S. might lose an additional one, two or five percent of a domestic market which already is too small. The main problem is that the U.S. industry is failing to do things that will make that market grow 10, 20 or 50 percent in the years ahead.

"The problem is that our whole textile industry—not a little of it but all of it—is genuinely demoralized and fearful of its future because it doesn't know where the next competition will strike. Therefore, our textile industry's capacity for taking action, aimed at building a bigger market for the years ahead is very seriously impared."

Soybean Futures Market

Kansas City Board of Trade has applied to the Commodity Exchange Authority for authorization to establish a soybean futures market.

When Two Ginning Leaders Relaxed

COTTON GINNING may not have been the topic of discussion when this picture was snapped; but chances are that the men soon got around to talking shop. Winston Lovelace, Loving, N. M., president of the National Cotton Ginners' Association, is shown on the left, with Mrs. C. A. Harvin and C. A. Harvin, president of Carolinas Ginners' Association. The picture was taken at the Harvin's summer home at Myrtle Beach, S.C., this summer when Lovelace was in the area to participate in the dedication of the Southeastern Cotton Ginning Laboratory at Clemson, S.C.

■ MRS. HAZEL L. ROBERTS of Oklahoma City has been appointed Extension clothing specialist at New Mexico A. & M. College, State College, N. M. She replaces MISS RHEBA M. BOYLES who resigned in 1955.

• Finishing Meeting In Washington

THE FIFTH annual Chemical Finishing Conference will be held at the Statler Hotel, Washington, Oct. 3-4. Research specialists from the Atlantic States will attend the meeting which is sponsored by the National Cotton Council's Utilization Research Division.

The versatility and strength of cotton finishes will be foremost among the topics discussed at the conference.

General chairman is J. Marshall Cole. Presiding over the speaking sessions are Emery I. Valko, Paul B. Stam and William M. Segall.

Shaw and McFarland Will Address Ammonia Group

Panel discussions, field trips and addresses by agricultural leaders are scheduled at the annual convention of the Agricultural Ammonia Institute, Nov. 7-9, at the Biltmore Hotel in Atlanta.

Dr. Byron T. Shaw, administrator, USDA Agricultural Research Service, and Dr. Kenneth McFarland, General Motors Corp., will be among the featured speakers.

General Ralph H. Wooten is president of the Institute and Jack F. Criswell, Memphis, is executive vice-president.

Bale Sampler School Held in California

The second annual day-long service school for cotton gin managers and superintendents sponsored by Delano District Chamber of Commerce and a local manufacturer was held on Sept. 13. in Delano, Calif.

The school, inaugurated last September, outlines procedures and techniques in the use of the automatic cotton bale sampler manufactured in Delano under USDA rights granted to the Hadco Foundry.

Planted in May, Arkansas Soybeans Yield More

Soybeans perform best when planted no earlier than May in Northeastern Arkansas. Farmers from that area learned this recently at the annual visiting day at The Arkansas Alfalfa Substation, Osceola.

According to C. E. Caviness, project leader of soybean research, beans planted at the recommended date in May look considerably better than those planted earlier or later. In previous years, yields from the May planting have been superior to those of earlier plantings, he said.

Caviness pointed out to the group that early planting in April does not necessarily mean the beans will be ready to harvest earlier. He also warned growers that varieties respond differently to different planting dates. Therefore, it is important to use the recommended planting date for the variety being grown.

■ **M. K. DEAN, who has been with the Broadview Gin in Lubbock County for 21 years, has bought B. C. GOREE'S half interest in Farmers' Gin at Edmonson, Texas.**

More French Sardines Are Packed in Vegetable Oil

High olive oil prices are reportedly causing many canners of sardine-type fish in France to switch to vegetable oil, mostly to peanut oil. This does not necessarily mean an increase in vegetable oil consumption, however, because the 1955 sardine catch was only about half that of the previous year, according to USDA.

In 1955 about 54 percent of all sardines were packed in vegetable oil (other than soybean oil), and 42 percent in olive oil. The proportions of other sardine-type fish packed in vegetable oils ranged from 58 percent of the herring down to eight percent of the mackerel, USDA says.

Canada's Cotton Usage Increases in 1955-56

Canada's consumption of 380,000 bales of cotton during the August-July, 1955-56, marketing year represented an eight percent increase over consumption of 352,000 bales in the previous season. This year's consumption represents the highest utilization of cotton by Canadian mills since the 1950-51 season, and was accomplished in spite of shut-downs (resulting from labor disputes) by one-third of the mills in May, says USDA.

Cotton imports into Canada during the first nine months, August-April, of the 1955-56 season amounted to 317,000 bales or about 15 percent higher than imports of 276,000 bales during the comparable months of 1954-55.

• Dec. 13-14 — Second annual Cotton Production Conference. Tutwiler Hotel, Birmingham, Ala. For information, write National Cotton Council, P. O. Box 9905, Memphis, Tenn.

1957

• Jan. 23-25 — Southern Weed Conference. Bon Aire Hotel, Augusta, Ga., Dr. W. B. Albert, South Carolina Experiment Station, Clemson, president.

• Jan. 28-29 — National Cotton Council of America annual meeting. Jefferson Hotel, St. Louis. For information, write Wm. Rhea Blake, executive vice-president, P. O. Box 9905, Memphis, Tenn.

• Jan. 31-Feb. 1—Carolinas Ginners' Association annual convention. Clemson College, Clemson, S.C. Clyde R. Allen, executive secretary, P. O. Box 512, Bennettsville, S.C.

• Feb. 4-5—Texas Cooperative Ginners' Association, Houston Bank for Cooperatives and Texas Federation of Cooperatives joint meeting. Rice Hotel, Houston. For information, write B. E. Schroeder, 307 Nash Building, Austin.

• Feb. 4-5—Cottonseed Processing Research Clinic. Southern Regional Research Laboratory, New Orleans. Sponsored by Valley Oilseed Processors' Association and USDA. C. E. Garner, 1024 Exchange Building, Memphis, Association secretary.

• Feb. 12-13 — Southeastern Gin Suppliers' Exhibit. Biltmore Hotel, Atlanta. Sponsored by Southeastern Ginners' Council, composed of ginners of Alabama, Georgia and Florida. For information and space, write Tom Murray, 714 Henry Grady Building, Atlanta 3.

• Feb. 27-March 1 — Cotton Research Clinic. General Oglethorpe Hotel, Savannah, Ga. For information, write National Cotton Council, P. O. Box 9905, Memphis.

• Feb. 28-Mar. 1 — Oklahoma Cotton Ginners' Association annual convention. Skirvin Hotel, Oklahoma City. Edgar L. McVicker, 1004 Cravens Building, Oklahoma City, secretary-treasurer.

• March 5-6—Western Cotton Production Conference. Hotel Westward Ho, Phoenix, Ariz. Sponsored by Southwest Five-State Cotton Growers' Association and National Cotton Council.

• March 11-13 — Midsouth Gin Supply Exhibit. Midsouth Fairgrounds, Memphis. For information, write W. Kemper Bruton, P. O. Box 345, Blytheville, Ark. Arkansas-Missouri, Louisiana-Mississippi and Tennessee ginners' associations sponsor the exhibit and will hold their annual convention concurrently.

• March 11-13—Arkansas-Missouri Cotton Ginners' Association annual convention. Memphis. W. Kemper Bruton, P. O. Box 345, Blytheville, Ark., executive vice-president. Concurrent with Midsouth Gin Supply Exhibit.

• March 11-13 — Louisiana-Mississippi Cotton Ginners' Association annual convention. Memphis. Gordon W. Marks, P. O. Box 1757, Jackson, Miss., secretary. Concurrent with Midsouth Gin Supply Exhibit.

• March 11-13 — Tennessee Cotton Ginners' Association annual convention. Memphis. W. T. Pigott, Milan, Tenn., secretary-treasurer. Concurrent with Midsouth Gin Supply Exhibit.

• March 25-26—Valley Oilseed Processors' Association annual meeting. Buena Vista Hotel, Biloxi, Miss. C. E. Garner, 1024 Exchange Building, Memphis, secretary.

• Apr. 30-May 1-2 — Spring meeting of American Oil Chemists' Society. Roosevelt Hotel, New Orleans. For information, write American Oil Chemists' Society, 35 East Wacker Drive, Chicago.

• April 1-3 — Texas Cotton Ginners' Association Convention, State Fair of Texas grounds, Dallas. Ed H. Bush, executive vice-president, 3724 Race Street, Dallas. For information regarding exhibit space, write R. Haughton, president, Gin Machinery & Supply Association, P. O. Box 7985, Dallas 26.

• May 2-3 — National Cotton Compress and Cotton Warehouse Association annual convention. Roosevelt Hotel, New Orleans. John H. Todd, 1085 Shrine Building, Memphis, executive vice-president.

• May 8-10 — Oil Mill Operators' Short Course. Texas A. & M. College, College Station. Sponsored by Texas Cottonseed Crushers' Association and International Oil Mill Superintendents' Association. For information, write Dr. J. D. Lindsay, Texas A. & M. College.

• May 14-15 — Oklahoma Cottonseed Crushers' Association annual convention. Western Hills Lodge, Sequoyah State Park, Wagoner, Okla. Edgar L. McVicker, 1004 Cravens Building, Oklahoma City, secretary-treasurer.

• May 20-21—National Cottonseed Products Association annual convention. Shoreham Hotel, Washington, D.C. John F. Moloney, 19 South Cleveland Street, Memphis, secretary-treasurer.

• June 3-4—Alabama-Florida Cottonseed Products Association and the Georgia Cottonseed Crushers' Association joint convention. Edgewater Gulf Hotel, Edgewater Park, Miss. For information, write C. M. Scales, 322 Professional Center, Montgomery 4, executive secretary, Alabama-Florida Association; J. E. Moses, 318 Grand Theatre Bldg., Atlanta, secretary of Georgia Association.

• June 5-6 — Tristates Oil Mill Superintendents' Association annual convention. Peabody Hotel, Memphis. Roy Castillow, 20 Lenon Drive, Little Rock, Ark., secretary.

• June 16-18 — Joint annual convention of South Carolina Cotton Seed Crushers' Association and North Carolina Cotton-

seed Crushers' Association. Fort Sumter Hotel, Charleston. Mrs. M. U. Hogue, 612 Lawyers Building, Raleigh, secretary-treasurer, North Carolina Association; Mrs. Durrett L. Williams, 609 Palmetto Building, Columbia, secretary-treasurer, South Carolina Association.

• June 16-19—International Oil Mill Superintendents Association. Hilton Hotel, El Paso. For information, write H. E. Wilson, secretary-treasurer, P. O. Box 1180, Wharton, Texas.

• June 19-20-21—Southwestern Peanut Shellers' Association annual convention. Menger Hotel, San Antonio, Texas. For information, write John Haskins, Durant Peanut Co., Durant, Okla., secretary-treasurer.

• Sept. 30-Oct. 1-2 — Fall meeting of American Oil Chemists' Society. Cincinnati. For information, write American Oil Chemists' Society, 35 East Wacker Drive, Chicago.

•Oct. 2-3-4 — Beltwide Mechanization Conference, Shreveport, La. For information, write National Cotton Council, P. O. Box 9905, Memphis.

Role of Moisture in the Reactivity of Cotton

Moisture content and moisture sorption history play an important part in determining the reactivity of cotton acetylated by the acetic anhydride-pyridine method, according to studies carried out by USDA scientists.

Raw cotton which had been dried prior to treatment with pyridine and acetic anhydride showed little reactivity until eight to 10 percent moisture had been absorbed. The degree of acetylation increased rapidly until the moisture content reached 20 to 22 percent. Further increases in moisture content had little effect on the extent of acetylation. Raw cotton soaked in water showed no decrease in reactivity until the moisture content was reduced to about 10 percent, after which the acetyl content decreased rapidly with loss of moisture.

Effects of several pretreatment agents were investigated. Treatment with sodium hydroxide in concentrations of 15 percent and higher increased reactivity of cotton to acetylation, a property retained to a considerable extent even when the cotton was dried after the alkali treatment and before acetylation.

"Influence of Moisture Sorption and Other Pretreatments on the Acetylation of Cotton with Acetic Anhydride and Pyridine" appeared in the Textile Research Journal for April, 1956. Reprints may be obtained without cost from the Southern Utilization Research Branch, 1100 Robert E. Lee Blvd., New Orleans.

1956 Feed Sales Over Four Million Tons

Feed manufacturers doing business in Texas sold 4,053,139 tons of commercial feed during the state fiscal year ending Aug. 31, 1956, according to F. D. Brock, chief of the feed control service.

An all-time high was the sale of 4,405,676 tons in 1951-52. Other record years were 4,117,344 tons in 1952-53 and 4,080,139 tons in 1954-55.

Records of the feed control service show that about 1,700 commercial feed firms did business in Texas during 1955-56. About 400 of these firms have their headquarters outside of Texas.

laugh it off

In Texas, ranch folks like their liquor straight, as illustrated by one oldtimer who, pouring himself a jigger of whisky, said, "Friend, blindfold me and hold my nose, 'cause if I see it or smell it, my mouth will water and that'll dilute it."

• • •

Marilyn was portraying a Southern belle in one picture, and was wearing a rather daring, low-cut gown. "A Biblical gown," somebody termed it—"lo and behold!"

"That's a beautiful dress you nearly have on," said a fellow player.

In her best Southern accent, Marilyn said "Sho' enough?"

"It sure does!"

• • •

In Houston recently a police car cruising along the street received the following call: "Calling Car 37, Calling Car 37, go to Main Avenue and Gray Street. Nude woman running along the street. That is all." There was a pause, then came an afterthought: "All other cars stay on your beats. That is all."

• • •

A motorist was a hundred yards from an open level railroad crossing and was proceeding at 25 miles an hour. A train was approaching at 60 miles an hour and its distance from the crossing was 165 yards. Problem: Did the motorist get across?

Solution: Yes, the motorist got a cross. His widow bought it out of the insurance money.

• • •

The visiting minister had just finished a delicious chicken dinner. Seeing a rooster strut across the yard, he said, "My! but that rooster is proud."

"Yes, sir," said the host, "he has reason to be proud. One of his sons has just entered the ministry."

• • •

At a wedding not long after the war, the groom, only recently back from overseas, had hardly glimpsed his bride before the ceremony. Therefore when time came for the kiss it was a long one, lasting on and on until a child's voice rang out in the silence of the church.

"Mummy, is he spreading the pollen on her now?"

• • •

Motorist: Ma'am, I just ran over your cat, and I've come to replace it.

She: Very well, but are you sure you can catch mice?

• • •

Wee Willie was walking with Wanda, his brand-new girl, on the way home from grammar school. Both were eight years old.

"Wanda," said Wee Willie with worshipping eyes, "you are the first little girl I have ever loved."

"Darnit," said little Wanda, "I've drawn another beginner."

• • •

"I understand you have been having your family tree looked up."

"Yes, and it cost me $5,000."

"I heard it was $1,000."

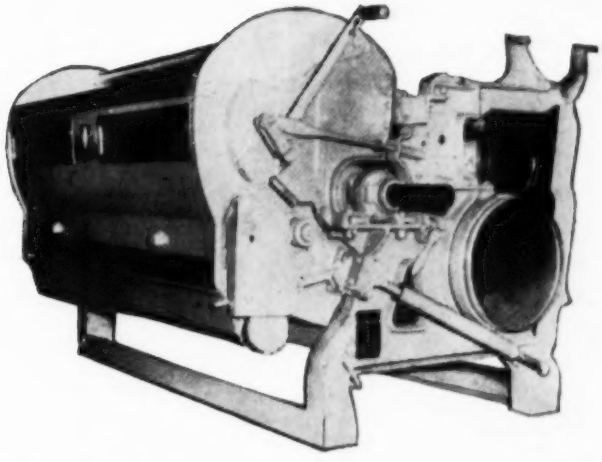
"That's what it cost me to have it looked up. The other $4,000 was to have it hushed up."

• • •

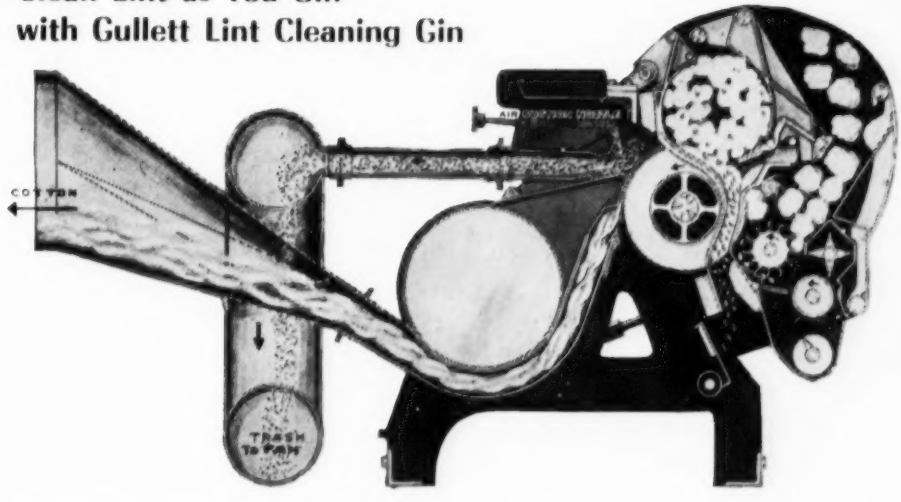
Some time ago we received a letter which read: "Dear Sir: This will acknowledge your letter of March 1st, which caught me with my secretary in the hospital."

GULLETT

AIR BLAST COTTON GIN WITH LINT CLEANER BUILT IN



Clean Lint as You Gin with Gullett Lint Cleaning Gin



GULLETT LINT CLEANING GINS clean lint while you GIN, because the stream of lint at the point this Cleaning System is applied is very thin, and lint tends to extend away from the gin saws. The fringe of this lint strikes GRID BARS and loosens pin trash, leaves and motes which are readily sucked up by air, drawn in over GRID BAR by suction fan, thus removing leaves and trash, also keeping the GRID BAR clean. This Suction Nozzle is very similar to the Air Blast Nozzle that removes ginned lint from the saws and has ample capacity for removing trash, leaves and motes, making a very effective Lint Cleaner within the gin.

GULLETT GIN COMPANY

AMITE, LOUISIANA, U. S. A.

MANUFACTURERS OF COMPLETE LINE OF COTTON GINNING MACHINERY